THE LAND OF THE WINE

BY A·J·DREXEL BIDDLE

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THE RISING TIDE AT MADEIRA.

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THE
LAND OF THE WINE

BEING

AN ACCOUNT OF THE MADEIRA ISLANDS AT THE BEGINNING OF THE TWENTIETH CENTURY, AND FROM A NEW POINT OF VIEW

BY

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Volume II

WITH THIRTY-EIGHT FULL-PAGE ILLUSTRATIONS; A MAP OF MADEIRA SHOWING DISTRICTS DEVOTED TO VINE-CULTURE; AND FAC-SIMILES OF OLD BILLS OF LADING

AND TREATING OF

THE NATIVES, THEIR CHARACTERISTICS, RELIGION, LAWS, AND CUSTOMS; THE COMMERCE; THE FLORA; THE VINE AND THE WINE; AND THE FAUNA

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Part IV

The Natives: their Characteristics, Religion, Laws, and Customs

WINE INSTITUTE

The Land of the Wine

CHAPTER XII

LAW AND RELIGION

Population.—The population of the island of Madeira to-day is about one hundred and forty thousand.[1] Of this number, Funchal, the metropolis, contains some twenty thousand inhabitants, and the districts bordering the city limits are thickly populated and have as many more. Thus, Funchal and the adjacent "parishes" (as the districts are called) have a population, all told, of about forty thousand. The city of Funchal is divided into four *freguezias* (Portuguese for parishes), and the bordering districts include four more.

Administration.—The island is divided into nine municipal districts, or *concelhos*,[2] which are in

[1] Chapter XVI., Density of the Population.

[2] The island was apportioned into *concelhos* during the years 1511–1515. See Chapter III., Changes in Administration.

turn subdivided into *freguezias*, to the number of forty-eight. These various divisions are for the purpose of administration, the city parish being in some respects like the American city ward and the *concelho* like the county of an American State. The *concelho* is governed by an *administrador do concelho*, and the *freguezia* by a *regedor de parochia* (another word for *concelho*). The head authority, or comptroller, of the island is the civil governor, who is appointed by the Portuguese government at Lisbon.[1] The present civil governor is D. Thomaz d'Almeida Manoel de Vilhena.

The *freguezias* are thus apportioned among the *concelhos:*

1. Funchal.

Sé, N. S. Do Monte, Santa Luzia, São Gonzalo, Santa Maria Maior, São Pedro, São Roque, Santo Antonio, São Martinho.

2. Camara de Lobos.

Camara de Lobos, Campanario, Quinta Grande, Curral das Freiras, Estreito de Camara de Lobos.

3. Ponta do Sol.

Canhas, Magdalena, Ponta do Sol, Ribeira Brava, Serra d'Agoa, Atabua.

[1] Chapter VII., Relating to the Governor.

4. Calhêta.

Arco da Calhêta, Calhêta, Estreito da Calhêta, Prazéres, Fajãa da Ovelha, Jardim do Mar, Paül do Mar, Ponta do Pargo.

5. Porto Moniz.

Porto Moniz, Achadas da Cruz, Ribeira da Janella, Seixal.

6. São Vicente.

Ponta Delgada, Boa Ventura, São Vicente.

7. Santa Anna.

Santa Anna, Fayal, São Roque, São Jorge, Arco de São Jorge.

8. Machico.

Machico, Agua de Pena, Santo Antonio da Serra, Caniçal, Porto da Cruz.

9. Santa Cruz.

Camacha, Caniço, Santa Cruz, Gaula.

Porto Santo Concelho.—The island of Porto Santo is reckoned as a single *concelho*, with but one *freguezia*.

Porto Santo.

N. S. da Piedade.

The Accomplishments of D. Diniz I.—During the latter part of the thirteenth century the provinces of Portugal were reunited, and D. Diniz I.

ascended the throne of a newly consolidated kingdom. He took the reins of government firmly in hand, and proved himself to be a wise and able ruler.

Military Order of Christ.—Among his many achievements was the successful establishment of the Christian faith on a military basis at the time of a violent religious dissension that threatened the country with civil war and disunion. It was with a view to conciliating the various contending factions that the king submitted the plan which he had conceived to the Pope, who warmly approved it. His Holiness, in furtherance of this plan, published a bull on March 15, 1319, whereby he created a new military order in Portugal, under the title of the *Order of Christ.* Thereupon a number of other orders, which had grown powerful and dangerous to the public peace and welfare, passed out of existence, and the Order of Christ became an organization of vast influence, having at its head the reigning monarch.

"It was with supreme joy," says the illustrious historian Schoefer, "that D. Diniz beheld, towards the end of his reign, an institution rising up which

he had saved, and into which he had infused new life. What a sweet recompense would this generous and magnanimous prince have gathered could he have seen the glorious consequences which resulted from his benefits—could he have foreseen that a century later a grand master of that same order, the immortal Infante D. Henry, leaning pensively over the waves which beat against Cape St. Vincent, should conceive the grand thought of effecting, with only the means at command of the Order, the discovery of the islands[1] and the regions whose existence he surmised! Could he have observed how the knights, finding Portugal too narrow for the vastness of their adventuresome spirit, would cross the unknown seas to plant the foundations of Portuguese power on the other side of the globe, and assure a distinct place in the annals of the people! D. Diniz could not foresee all these acts, any more than he could divine that the pine-trees planted so carefully on the heights of Leira, in order that the violence of the sea breezes should

[1] For an account of the discovery of the Madeiras by Zargo's expedition, which was equipped and sent out by Prince Henry, see Chapter II.

not cover with mountains of sand, washed by the sea, the fertile plains of his residence, would form the luxuriant and immense forests from whence to build the ships wherein the knights and brave sailors sailed across the seas to widen the dominions of Portugal, and prepare the basis of a commerce which was to join the two parts of the world. What fruits are still in store for the future yet to be gathered from the beneficent institutions of so enlightened and prudent a prince!"

Excepting during the period of Spain's supremacy over Portugal, 1580–1640, the Military Order of Christ has continued to be the ruling institution of the Portuguese kingdom, and today its authority is supreme: its chief officer, the present king, makes all ecclesiastical appointments.[1]

The Roman Catholic Church.—Funchal is an *episcopado*, or bishopric, and directly serving the

[1] When the chief officer of the Military Order of Christ dies, all the officials of church and state are required to observe a period of mourning, concluding with a ceremony known as the "Breaking of the Crown," before the succeeding monarch may fill the place of the Order's chief officer. See Chapter XV., Fête-Days and Religious Celebrations.

bishop are a purveyor, a supervising curate, and a scrivener. The present bishop of Madeira is D. Manoel Agostinho Barreto.

The Bishop of Madeira.—The Bishop of Madeira has the supervision of some forty-nine churches, there being a church in every parish of the island. A staff of about one hundred and ten priests conduct the services of the various churches.

A Monastery of By-gone Days.—On the spot where the New Public Gardens (Chapter VII.) are situated there once stood a great monastery[1] and a chapel, whose interior decorations consisted entirely of human skulls and cross-bones, to the number of some three thousand three hundred. It is related that the crumbling ruins revealed one day two skeletons which had been built into the walls; the story of which, doubtless an ancient tragedy, will ever continue to be as completely unknown as the identity of the bony remains.

Nunneries: Convento de Santa Izabel.—Adjoining the Hospiçio Santa Casa da Misericordia

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[1] The ruins of a Franciscan monastery stand on the road to Machico, Chapter VIII.

(Chapter VII.) is the Convento de Santa Izabel, where female orphans are cared for.

Convento do Bom Jesus.—The Convento do Bom Jesus offers a home to widows and to married ladies whose husbands have left them temporarily. This convent was founded in the year 1666.

Convento das Merces.—A Capuchin nunnery is the Convento das Merces, opened in the year 1654. Its rules are very strict, practically excluding visitors.

Convent of Santa Clara.—In 1492, the year of America's discovery, the Convent of Santa Clara was founded. Here dwelt the beautiful nuns who are sung of in the verses of many poets. Henry Nelson Coleridge is quoted as having said, in the year 1825, "If your whim or your necessities should lead you to Madeira, go, for my sake, to the nunnery of Santa Clara."

Sister Clementina, the Most Beautiful Woman.—It was there, and at the time Coleridge is quoted as having said the foregoing, that Sister Clementina, the most beautiful woman of Madeira, lived in seclusion. In the chapel adjacent to this convent is Zargo's tomb.[1]

[1] Chapter III., Where Zargo is buried.

Burial of Natives.—It was in by-gone times the custom to bury the dead beneath the floors of the churches, as is done in many of the old-time churches of Europe. But now this unsanitary practice has been abolished, and every parish in Madeira has its cemetery.

The Portuguese General Cemetery.—The Portuguese general cemetery is the largest and most important. It is situated in Funchal, on sea-cliffs opposite the Empress of Brazil's hospital. It is picturesquely arranged and is planted with cypresses.

Masonry.—Its main gateway is of exquisitely carved *Cantaria*[1] stone, and is a good example of native stone-cutters' skill. The elevation on which it stands is known as Angustias Hill. Tombstones stand at the heads of many of the graves, but the sight of photographs of the deceased in black frames attached to the tombstones is a decidedly unfamiliar one to the foreigner.

The Hebrew Cemetery.—A Hebrew cemetery is situated just without the town limits, and carved over the main entrance is an inscription in Hebrew, meaning, in English, "House of the Living."

[1] Chapter IX., Quarries of Cantaria Building-Stone.

The Residents' Burial-Ground.—There are two English cemeteries. The first was established in 1764, before which date the English residents were required to bury their dead in the sea. Indeed, it was some years after the cemetery was opened ere the bodies interred therein could be regarded as safe from desecrating hands. This first-established cemetery is known as the Residents' Burial-Ground. A high wall now encloses it, and it is infrequently used.

The New British Cemetery.—Across a narrow way is the new British Cemetery, which was opened in 1852. Its entrance is on the *Carreira*, a main thoroughfare. It is beautified with trees and flowering plants and is well kept. Though it is a sad place to visit, it nevertheless inspires the Englishman or American with a certain feeling of pride and satisfaction when he realizes that *his* people have their burial-ground in this far-away country, and that many of the descendants of those here buried are living in Madeira to-day and are near at hand to greet him.

The Strangers' Cemetery.—Another burial-ground, known as the Strangers' Cemetery, was opened in 1808, and was used for the interment

of British visitors who died in the island before the opening of the new cemetery. It is situated on a piece of land adjacent to the burial-ground now in use.

British Churches.—While the officially recognized religion of the islands is Roman Catholic, the Church of England and the Free Church of Scotland are also represented in Madeira; indeed, a colony of some seven hundred British residents own and control the chief interests of the island, and without British trade many of the natives would be in a condition of semi-starvation. The British would be all-powerful did they hold the key to improvement,—viz., the government.

The Church of England.—An instance of their lack of political power may be cited by recalling the difficulties with which the erection of the English Church,[1] during the early part of the present century, was attended. Permission was granted by the Portuguese government only upon the condition that the edifice should bear no ecclesiastic appearance; thus it came about that the English Church has neither steeple nor bells. It is a picturesque-looking building, nevertheless,

[1] Chapter XV., The English Church.

and is situated in the midst of a most lovely garden. A pathway leads beneath the arching branches of a double row of trees from the roadway to the main entrance doors.

The Free Church of Scotland.—The Free Church of Scotland was established in Funchal at a somewhat later period than the English Church. Indeed, it found an opening under circumstances which did not attend the entry of the English Church, for its erection was permitted in the usual ecclesiastical style. Within recent years it has enjoyed a prosperity which has afforded recurring opportunities for congratulation in the reports of the Assembly's Colonial Committee.

CHAPTER XIII

ATTITUDE TOWARDS FOREIGNERS; ADMIRATION FOR AMERICANS; ANNEXATION TO THE UNITED STATES THE CREED

British Monopoly of the Commerce.—As elsewhere mentioned, three-fourths of the wine trade is in the hands of the English,[1] and nearly all the larger shipping firms and banking houses are owned and financiered by Englishmen. Hence it is not to be wondered at that the ignorant classes of Portuguese for some time disliked the English.

The writer has great pleasure in adding, however, that now all antagonistic spirit on the part of the natives is entirely absent, as Madeirans of all classes have come to realize that the English, while monopolists, are kind and beneficent masters, and treat their employees commercially with a higher degree of Christian consideration than do perhaps any other people in the world. And

[1] Chapter XXIII., The Vine and the Wine.

then, too, the natives now understand that for their better support they must look largely to the British, who, as colonists in Madeira as in all other backward countries, are invariably the first to make a garden in the barren plain of necessity, and to cultivate therein the finer plants of industry, while at the same time they remove the weeds of ignorance detrimental to such new growth.

A good illustration of the former ignorant antipathy for the English may be seen by looking back a few years, say to the winter of 1889–90, when, at the close of the Anglo-Portuguese troubles in South Africa, Serpa Pinto,[1] the Portuguese leader, having been defeated in Africa, returned to Lisbon.[2] When the tidings of these events and of England's supremacy reached Madeira, the natives there were stirred to bitter strife and rioting against the English residents. The writer was in Madeira at this time, and for a short while fighting was fast and furious.

Hostilities were brought to a sudden termination in a most unexpected manner. This was at a time which might well be termed the crisis of

[1] Serpa Pinto died at Lisbon in December, 1900.

[2] Chapter IV., The African Question.

the attack upon the English; it was on the night before the day of the expected arrival of the British war-ships, a night long to be remembered.

The Fight of 1889.—The sky was starless; the moon, obscured behind a heavy mass of threatening clouds, cast but a dim and fitful light. One could not even distinguish from the windows what was going on in the street below, for Funchal was not then blessed with electricity and gas, like our cities at home. At night the town was naturally very dark, there being no lamps in the streets, except in a few of the public squares.[1]

There was a distant murmuring sound, such as that which precedes a coming storm. The murmuring grew louder and louder, and soon voices were distinguishable, together with the sound of hurrying footsteps. A gleaming of torches was observable up the street, and an infuriated rabble, yelling, gesticulating, and brandishing clubs, knives, and similar weapons, ap-

[1] Many of the streets and principal buildings are now lighted by electricity. See Chapter XVI., Letter from United States Consul Jones to the Writer, The Electric-Light Plant.

peared around the corner of the hotel, "Miles Carmo" (the English hotel), opposite which, in a small quinta (cottage), the writer resided with his family.[1]

On reaching the hotel the mob surrounded it. The prolonged, blood-curdling yells which rent the air, and swayed back and forth like peals of thunder from the maddened crowd, were enough to make the stoutest heart quail. The torches of the mob flashed luridly in the blackness of the night, and their reflected light glittered upon the knives that many of the rioters brandished.

The rioters seemed entirely without organization, but their desire to do harm was only too apparent as they threateningly shook their fists at the old walls of the hotel. Happily for the writer and his family, the crowd's one idea was to get into the hotel; the mob did not know of the writer's occupancy of the quinta across the way. Had they known, two or three blows from the heavy clubs which they flourished would

[1] In a Letter from United States Consul Jones to the Writer, Chapter XVI., he says, "I remember . . . your being at the Carmo Hotel annex on the night of the row. Rather a stirring night that!!"

have broken in the front door, and then—well, at such a moment it would have been impossible for the writer's family to prove their nationality as Americans and not as English.

Just about this stage of the attack, when the mob seemed to be undecided as to what to do next, a window in an upper room of the hotel was raised and a splash of falling water was heard. Some one had foolishly thrown a basin of water on the rioters.

A fusillade of stones was followed by enraged yells as the infuriated natives rushed savagely at the front door of the hotel, and began pounding it with their heavy clubs.

The rioters were now at work in earnest. Within the hotel all was confusion. Three waiters, pluckier than the rest, and several of the guests who possessed pistols had placed themselves behind the main entrance, resolved to make a desperate resistance and to sell their lives as dearly as possible.

The door was beginning to give way, and wild cheers of exultation rang out above the tumult as the glimmer of torches revealed glimpses of the excited natives, who appeared like furies in

the darkness. Fortunately, at this moment shouts in the rear caused the invaders to pause. A band of two hundred men, armed with boat-hooks, spars, and similar weapons, suddenly appeared on the scene and immediately attacked the rioters.

A fierce fight ensued, but, owing to the superior discipline which existed among the new-comers and the complete surprise by which they had taken the rioters, the struggle was a short one. The rescuers turned out to be boatmen, rêde-men (hammock-bearers), and carro-men (cart-drivers), whose bread and butter depended, more or less, on the foreigners' employing them.

These men had banded together hastily, having armed themselves with whatever they could find at hand. They arrived on the scene just in time to rout their fellow countrymen and save their patrons. The Portuguese troops and police had previously been called upon, but in vain, for protection: they were too much in sympathy with the rioters to interfere.

The victory, nevertheless, was complete.

Native Friendliness for the Americans.—Now, it so happens that, though, in their ignorance, they

used to dislike the English, the Madeirans have been for a long time ardent admirers of the Americans. A very curious notion exists among these simple islanders, to the effect that the American nation desires their annexation, and that, indeed, America needs their support.

Ask a Madeiran of average intelligence what his opinion is on the matter. He will most likely inform you, with the greatest assurance, that the annexation of Madeira to the United States is a settled thing, and that Uncle Sam is but awaiting a favourable opportunity to stretch forth his hand to the Madeirans and lift them from under the monarchical Portuguese yoke.

Natives down-trodden.—It is plain to see by this that the Madeirans have no love for their mother-country. Well, they *are* dreadfully over-ridden. Their highest ideal is to belong to or be under the protection of some great republic; they naturally look to the United States as the greatest.

They judge all other kingdoms by their own and therefore do not believe it to be possible that the subjects of any kingdom can have so many rights and be so free as the people of a republic.

In point of fact, the subjects of the mightiest of all kingdoms, Great Britain, enjoy as much liberty of thought and action in every way as the people of the United States.

For some inconceivable reason, the general idea exists among Madeirans that some day the people of the United States are going to make war on their home government, Portugal, for the sake of freeing them.

Poor, ignorant, down-trodden creatures! No doubt there are many like yourselves, in countries remote and near, who would weep for joy if they saw their dreaded monarchical flag torn down and supplanted by the pennant of freedom,—the stars and stripes. Blessed also are the people who live under the protection of the British flag.

Despotic Law.—The word of the Portuguese king means almost despotic law to his subjects. Though the king who died some twelve years ago was a most wise, just, and noble ruler,[1] yet even during his reign, and also to-day, during the reign of the present monarch,[2] the poorer

[1] Chapter IV., Reign of Dom Luiz I.

[2] Chapter IV., Dom Carlos I., the Present King.

classes of Portugal and of her colonies have been and are dreadfully down-trodden. This is not necessarily the fault of the ruler himself; it is rather the fault of the form of government over which he rules and of the corrupt and unprincipled officials through whom he issues his mandates.

Bad Government.—The King of Portugal knows but little of the true state of affairs existing in his country and among his people. His life seems to be continually misrepresented, and this by his representatives, the government officials, who lie to him regarding his people and who lie to his people regarding him.

The Army.—In Madeira the military are humoured and flattered without stint. All able-bodied young men are obliged to serve in the army either at home or abroad, more frequently the latter. The Madeirans have a well-recognized rank in the Portuguese army as the greatest fighters.

When recruited, the future destinations of the young soldiers are decided by lot. The young fellows are made to draw from a box slips of paper on which are written the posts to which

they are assigned for duty, and the length of time they must serve in the government's employ.

One fellow will draw a paper on which is written something to this effect: "Sir, You are commanded by His most Gracious Majesty, the King, to take ship immediately for Mozambique, there to report for duty in your government's service, and there to remain for the term of five years." Another fellow will draw a paper on which is written the announcement that he must immediately report for duty in Funchal, there to remain in his government's service for one year. In all cases these orders, issued and drawn by chance, must be obeyed.

Defensive Structures.—The defensive structures of Funchal comprise ten forts and batteries. The largest and best preserved of the forts are the Loo Rock Fort[1] and *Castello de João Battista do Pico*, or the Peak Fort. Loo Rock is equipped with fourteen guns and has a magazine and barracks. It commands the entrance to the bay, being built on Loo Rock, an islet seventy feet high, at the further extremity of the breakwater.

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[1] "Loo" is a corruption of "Ilheo," meaning rocky islet.

CASTELLO DE JOÃO BATTISTA DO PICO.

At night its red light can be seen at a distance by the people on incoming vessels.

The Peak Fort occupies a commanding position above the town and affords an extensive view of the surrounding country and of the ocean.

Fort San Thiago, head-quarters of Funchal's artillery, is situated on the coast to the east of the town.

CHAPTER XIV

THE SOCIAL LIFE

Behind the Times.—Are Madeirans behind the times? A pleasant, bright-faced young native, son of a wealthy Funchal merchant, once asked the writer if the Civil War had come to a close. This was in 1889.

Although singularly ignorant as to the topics of the world at large, for they rarely if ever see a newspaper, the ladies are fluent in small talk and in the traditions of their country, their people, their families, and their native superstitions. At a dinner-party one evening in Funchal, a pretty and otherwise clever young lady ventured the remark that President Washington must be a very popular old gentleman in the United States. The writer replied that President Washington had been dead for some years. The lady's face thereupon became sincerely sympathetic as she expressed her regret by saying, "I am so sorry at this news! It is, indeed, sudden to me, for it is the first I have heard of it."

A GROUP OF FUNCHAL LADIES.

Madeiran Aristocracy.—With no other class of people in the world is intercourse more delightful than with the Madeiran aristocracy. The well-bred stranger is at once made to feel himself a highly distinguished and important personage by reason of the many gracious hospitalities invariably shown him.

The Ladies.—The ladies of Madeira are especially beautiful, and their fascinating manners entrance the foreigner who is fortunate enough to secure the honour of an introduction to their society. They are ingenuous, clever linguists and conversationalists, possessed of many resources within themselves, and usually gifted with considerable musical talent. In temperament romantic, fiery, and emotional, they are in manner elegant and reserved. In stature they are usually finely proportioned, and their carriage is unaffectedly free and graceful.

Ladies' Dress.—They appear in public gowned in black, a colour of which they are passionately fond,[1] and they wear their hair, which is generally long and black, loosely upon their shoulders,

[1] Chapter XV., Attire of Ladies of the Aristocracy.

plaited in a braid, or pinned in a coil with ornamented pins and combs.

Wearing of Jewellery.—Plain gold ornaments and old-fashioned topaz jewellery from Brazil are much worn by them. (See foot-note to "Lack of Coinage in the Provinces," Chapter XVI.[1])

Their features are regular, their complexion dark, and their eyes languishing. Indeed, the languishing eyes of the Madeiran beauty are never to be forgotten by the foreigner who has once encountered their penetrating glance. The drooping eyelid is a characteristic, and long silken lashes discreetly protect the female eyes and are lifted only occasionally, when the eyes flash bright and true like radiant gems. The fair Madeiran[2] exposes her eyes as the fair Englishwoman exposes her jewels,—*i. e.*, only on proper occasions.

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[1] There is a mention of jewel wearing in Chapter XV., Where the Aristocracy viewed the Ceremony.

[2] *Menina*, the Portuguese word for infant or child, applies to all unmarried women, and is usually prefaced to a woman's name in place of Miss. It is rather odd to hear an elderly spinster of some fifty summers addressed as child or infant. See foot-note in Chapter II., Nicknames.

Good Manners.—Good manners are cultivated as an accomplishment in many lands, but in Madeira they may be regarded as an inborn characteristic of the people. Domestic servants[1] never call one another by their Christian names, but invariably prefix Senhor and Senhora.

Native Formalities.—They must be addressed by their employers as Vossé, a contraction of Vossa Merce (meaning "Your Honour"). When a native of inferior station is tendered either a gift or his just due, he imprints a kiss upon his hand before taking the proffered article, as a sign of regard for his superior. "Vai-te com São Pedro" cries the profane native when angered, and that means, "Go to Saint Peter." In a similar state of perturbation the profane Anglo-Saxon says, "Go to hell."

A Deadly Insult.—An altercation consists chiefly in begging one another's pardon for differences of opinion, and it is a deadly insult to call a man "insecta feio" (ugly insect). On taking leave a Frenchman commends his friend to the care of God by the trite term "adieu;" the Anglo-Saxon

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[1] Chapter VI., Servants.

nods his head and says, quickly, and in poll-parrot fashion, "Good-by," rarely knowing that he is abbreviating the sentence "God be with ye;" the Madeiran bows gracefully and says, "O, Senhor, passe muito bem até o outra dia, se Dios quizer" (Oh, sir, may you remain in much health until next we meet, God willing). Business or social meetings are opened by numerous interchanges of complimentary greeting ere the business or social topics are discussed, and the bowings and scrapings that are gone through with on these occasions are painfully polite.

A Thrilling Adventure.—Time can never erase from the writer's memory the minutest details of a certain call that he received from a police official who was in search of an escaped negro criminal and had been detailed to ascertain whether the writer might not be the said runaway in disguise. It was the sweltering time of the day when the official called, and he was stout and exceedingly damp. But he bowed ceremoniously and the moisture dropped copiously from his face. When he deposited himself in a small cane chair, the writer expected to see the cane break; it only creaked, but the official arose laboriously and

again bowed with due ceremony, muttering something that sounded like "Ta-ra-ra-boom-de-aye!" (The writer had not then acquired the language.)

Before reseating himself in a stronger chair the official bowed once more. Then he silently contemplated his victim until the panting brought on by his recent exertions subsided sufficiently to allow him to speak, when he began propounding in broken English a series of inquiries as to the writer's identity. As he proceeded in this examination he grew assertive and overbearing, and the writer felt dismayed lest the official should by his own peculiar reasoning form the conclusion that he had found the criminal of whom he was in quest. Being but lately arrived, the writer's complexion had not yet become sufficiently tanned to conceal the paleness that he felt sure must have overspread his countenance at this juncture.

A Hair-Breadth Escape.—Now, "he who fights and runs away may live to fight another day," but "he" is usually called a coward by the unsympathizing populace. The writer experienced the inclination to run, and with that inclination came the pallor to his countenance. Oh, happy

inclination! oh, welcome pallor! A realization that it would be difficult to run away on a small, foreign island prevented him from beating an undignified retreat. But the pallor remained, and the fat official, with eyes riveted on the writer's face, suddenly started aback, and struggled stoutly to his feet, exclaiming:—

"Zir, because you had not got your ticket ohf residenze, I zought perhaps you were ze escaped negro criminal, but you are *w'ite*, an' you zerefore can *not* be he."

So relieved was the writer by the removal of the cloud of suspicion under which he had unwittingly placed himself, by his failure to comply with the island law that every stranger must buy a ticket of residence immediately after landing,[1] that he proceeded to show the departing official every politeness. This he accomplished by bowing in unison with his visitor, who was bowing himself to the door. The late suspect, however, felt some pangs of superstition when he bowed for the final and thirteenth time. And he straightway set about to secure the desirable ticket of residence.

[1] Chapter V., Ticket of Residence Requirement.

A COUNTRYMAN FROM FAYAL.

Social Life

Native Character.—Let us return for a moment to the subject of characteristics of the Madeirans,[1] for an interesting contrast is found between the peasantry and the lower class of towns-people.

The Peasantry.—Much can be said in praise of the peasantry: they are thrifty, hard-working, honest, straightforward, and though, as a rule, simple and rather stupid, they are cleanly and devout.

Religious Life.—As soon as it can talk and understand, the peasant child is made to learn "O Padre Nosso" (the Lord's prayer) and the various articles of religion;[2] and the parents bide literally by the dictates of the Bible, rarely stirring from home save to make a pilgrimage to some religious festival[3] or holy place, and in most cases living all their lives and dying upon the soil of their forefathers.

Biblical Customs.—During the heat of the summer months much labour is done at night, and it is a picturesque spectacle to see the peasants tilling their fields in the moonlight as they chant

[1] Chapter IV., Race.

[2] Chapter XII., The Roman Catholic Church.

[3] Chapter VII., Feast of the Assumption.

hymns and praises to their Heavenly Father.[1] Many of the agricultural implements employed are fashioned after those described in the Bible, and the ox treads out the corn unmuzzled and eating as he works, in obedience to the commandment, "Thou shalt not muzzle the ox that treadeth out the corn." Many other Biblical customs are observed among the peasantry, and the subject here touched upon is treated further in other chapters.[2]

The Towns-People.—Very little which is commendable can be said of the lower classes of the towns-people: they are stricken with poverty and are of a lazy, slovenly disposition.

Famine.—The island being over-populated,[3] it is no uncommon event for a famine[4] to occur among the Funchalese when a scarcity causes the market price of food to rise above normal.

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[1] Chapter VII., Moonlight Excursions.

[2] Other Biblical customs are described in Chapter XV., Fête-Days and Religious Celebrations; Chapter VII., As in Biblical Days.

[3] Statistics of the Population of Madeira, Chapter XII.

[4] Chapter VII., Legend of the Fountain; Chapter XVI., Density of the Population, MADEIRA IN 1898.

A CITIZEN OF FUNCHAL.

Baron Conceição, the Corn-Giver.—Once when a famine was prevalent in the town, a wealthy Portuguese resident, named Senhor Figueira, threw open his doors to the poor and supplied them with all the food which they needed. The king, on account of this act, afterwards created Senhor Figueira Baron Conceição, the latter title meaning in English "corn-giver."

Baroness Conceição's maiden name was Miss Langstroth. She came originally from Germantown, near Philadelphia. Baron Conceição died a number of years ago, and the baroness now lives with her daughter, who is married to a Dr. Jardim. In winter they occupy the late baron's magnificent estate,[1] which is situated on a highland directly outside the city; during the summer months the baroness resides at her home in the mountains near Camacha.

Over-population[2] is doubtless the indirect cause of much of the beggary.

Asylo da Mendicidade.—In 1847 the Asylo da Mendicidade, an almshouse, was opened. Up to

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[1] Chapter XV., Dinner at Baroness Conceição's.

[2] Chapter XII., Population.

that time there had been no charitable organizations of such a character in Funchal. The Asylo is situated on Angustias Hill. On an average about twenty-two new applicants are accepted every year.

Beggars.—In a book on Madeira recently issued the author states that "the streets have been much relieved of those who lay in wait to exhibit their rags and deformities to the passer-by or to pour the tale of their distresses into his unwilling ear." The writer begs leave to differ with this statement;[1] he thinks that a depletion of twenty-two beggars per year in the ranks of the many hundreds that throng the city streets is hardly noticeable, still less a solution of the problem of poverty in Funchal.

Poverty in Funchal.—The beggars roam the streets at all hours. The poverty existing among

[1] The fact that the Asylo contained one hundred and thirty-one inmates in the year 1883 and but one hundred and twenty inmates in 1884 hardly seems to sustain the inference drawn by the author quoted,—that the Asylo is absorbing the beggary of Funchal. A fair is held annually in the town for the benefit of the destitute, there being no regular civic contributions or apportionment of taxes.

A COUNTRY-LASS AND HER MACHÊTE.

the lower classes of the towns-people is dreadful, and some of the beggars are most revolting spectacles.

But one becomes accustomed to this unattractive feature in street scenes. Beggary is a complaint in all southern countries. In some districts in Italy it is worse and more revolting than it is anywhere in Madeira.

Music and Musical Instruments.—The natives are passionately fond of music.

The Machête.—They have an instrument peculiar to their use and called the *machête*, which when well played produces very sweet strains; in appearance it resembles closely a small guitar, though it has but four strings, all of catgut. The upper two are tuned in thirds, and the lower two in fourths.

While the native melodies consist in a succession of simple chords, the most difficult and classical music can be agreeably rendered upon the *machête*.

The Guitarra.—The *guitarra*, an instrument with twelve silver and brass wires, is used principally in accompanying the *machête*. In appearance it is like the old English guitar.

LIBRARY OF

The Rebeca.—The *rebeca*,[1] or violin, is also a favourite instrument with the natives.

An orchestra composed of the foregoing instruments[2] renders the native melodies in a soft, dreamy tone quite in keeping with the surroundings,—the flower-perfumed and sun-laden air, flooded with the songs of the wild canaries[3] that flock in countless thousands overhead.

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[1] The old English name for violin was almost identical with the present Portuguese name. Example,—

> "Where the merry bells ring round
> And the jocund rebecks sound."
>
> *L'Allegro.*

[2] Chapter V., Scenes by the Wayside; Chapter XV., A Native Orchestra.

[3] Chapter XXV., The Canary.

THE ENGLISH CHURCH, VIEWED FROM THE STREET

CHAPTER XV

FÊTE-DAYS AND RELIGIOUS CELEBRATIONS

Some of the native ceremonies on *fête*-days are peculiarly interesting. The writer well recollects the Christmas that he spent in Madeira. It was a beautiful day; the birds chirped merrily in the gardens and the bright rays of the sun shone brilliantly in through the half-opened windows of the little English church.[1]

The English Church.—A resident clergyman had charge of it, the only English church on the island. It is a very picturesque-looking building, surrounded by a most lovely garden, standing back from the road, a narrow pathway leading up to it between two rows of trees and bushes, whose spreading branches, joined overhead, make a natural covered archway to the main entrance.

Dinner at Baroness Conceição's.—Dinner was taken at Baroness Conceição's,[2] and the afternoon passed right pleasantly. During the entire day the

[1] Chapter XII., The Church of England.

[2] Chapter XIV., Baron Conceição, the Corn-Giver.

streets of Funchal were completely deserted. The mystery of this was afterwards explained by the fact that the native population spend their Christmas by congregating in one another's houses and eating roast pig.[1]

Native Celebration of Christmas.—For our children we often cause to be constructed at this season a small green fence enclosing some miniature winter scene, in the midst of which appears the figure of the child's saint, Santa Claus. In Madeira the parents have a small enclosure made, but place therein miniature figures of the Virgin Mary, the new-born Christ, and the three wise men and the other worshippers. These figures are arranged in the midst of a summer scene, represented by green moss and plants. This exhibition is called the *Lapinha*, and it is customary to keep it on view until after New-Year's-day, that the various friends of the family may call to enjoy and admire its artistic arrangement.

Fireworks and Cannon.—An important part of the Christmas celebration consists in making as

[1] Chapter XVII., Pigs, and the Position they occupy in the Peasant's Household.

much noise as possible. From early dawn till late at night the air was every moment rent by the banging and booming of cannons, fire-crackers, guns, and bombs.

One felt really as though the island were under a fusillade. Indeed, it seemed more like a regular old-fashioned Yankee Fourth of July celebration than an appropriate observance of the blessed Christmas-day.

New-Year's-Day.—Now, New-Year's-eve and New-Year's-day, curiously enough, appear to be celebrated the world over in almost identical fashion. This is very noticeable, I think, in the different countries of Europe.

In Switzerland, especially, New-Year's-day is celebrated with great *éclat* and after the manner in which we celebrate it here in America. Just so among the Madeirans: on New-Year's-eve the discharge of musketry and cannon "welcoming in the new year" is constant and tremendous, rendering sleep out of the question.

New-Year's-day is taken up with feasting; and mumming in the streets is also a sport largely participated in. It is furthermore a universal custom to fly kites on that day. However, kite-

flying is at all seasons the predominating and ever-popular pastime of the islanders.

Bull-Fighting.—Several attempts have been made from time to time to institute bull-fighting[1] as a chief amusement in Madeira. Thus far, however, these efforts have never met with success.

Frequency of Legal Holidays.—As has been remarked elsewhere, religious ceremonies are of frequent occurrence, and their observance enters largely into the routine life of the islanders.[2] A religious or patriotic fête-day occurs about once every week throughout the calendar year, and every such day of either character is declared to be a legal holiday. On these occasions kite-flying is the principal sport.

May-Day.—The first of May, "May-day," is celebrated by processions, balls, and like gayeties. It is regarded in Madeira, as it is in Austria and England, a great time for merry-making. During the day masqueraders march about the town, halting every now and then on street-corners or

[1] Chapter IV., Dom Carlos I., the Present King.

[2] Chapter VII., Feast of the Assumption; As in Biblical Days; Chapter XII., Law and Religion; Chapter XIV., Religious Life; Biblical Customs.

in the open squares, where a group will form a circle around some fantastically dressed young woman and join in the "Madeiran dance."

The Madeiran Dance.—This is a weird, uncouth performance peculiar to the islanders. It in some respects reminds one of an American Indian war-dance. The step used is somewhat similar to that employed in the "Highland fling," and a low monotonous air is chanted, which is varied by yelps and piercing screams as the dancers become warmed to their work.

A Native Orchestra.—In the evening the visitors from the country organize their forces into a single procession. With a motley but very good band or orchestra[1] at their front, made up of guitar players, machête players, bass-viol and violin players, and tin-can beaters, they march out of the town by torch-light, many of the mummers keeping time to the music the while with the strange step peculiar to the "dance."

Annual Celebration of the Country Church.—Every country church holds its annual celebration on a Sunday during the summer months.

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[1] Chapter XIV., Music and Musical Instruments.

Within the church masses are said, and the crowd of participants in the ceremony, who have come from near and far, thronged outside the church, resemble a gathering of picnickers more than a group of worshippers. But those who are doing penance are quite apart from the merry-makers and partakers of the feast, for they may be seen ascending the hard stone steps of the church on their knees or creeping along the pavement on all-fours. Those who have been granted absolution manifest their joy by setting off fireworks,—rockets, crackers, and even small cannon. At early dawn along the approaches to the scene of the celebration pass throngs of peasants playing on their machêtes, guitars, and violins, and singing hymns.

Celebration at Machico.—There is a Festa held annually at Machico in commemoration of the supposed miracle relating to the return of a wooden cross and image that had been swept to sea from Machico by the great flood of 1803. The loss, the discovery, and the manner of the return of the cross and image in question constituted the miracle which is fully told of in Chapter VIII., under the paragraph entitled *Capella of Nosso*

Senhor de Milagres. The Festa is held during the twenty-four hours from mid-day on the 8th of October to mid-day on the 9th of October, as in the Roman Catholic Church days are always counted in this manner. For instance, the great Festa held at the Mount Church[1] on the 15th of August begins on the 14th of August at noon and ends on the 15th at noon. Now the Festa at Machico is held on the anniversary of the flood which took place on the 9th of October of the year 1803. Many are the festivities each year, and pilgrims journey from near and far to join in them. The ceremonies usually conclude with a procession by moonlight, and then rude images and figures are borne with great solemnity about the streets of Machico.

When the Bishop honours the Festa with his presence, as he often does, he wears a magnificent attire of scarlet robes and fine lace. After this Festa at Machico pilgrims are met in all directions returning homeward, laden with sacred cakes and quaint little pastry images of Nossa Senhora de Machicos. The bearers are taking

[1] Chapter VII., Feast of the Assumption.

these souvenirs of the festival to those at home who were unable to attend.

Religious Processions in Funchal.—The religious processions in Funchal are an institution. The statues of the various saints are carried in line along the streets on the shoulders of uniformed bearers, and the military occupy a prominent place in the ranks.

The Black Saint.—The statues of the twelve apostles are carried in line, and one of the statues, which is black, is bound to attract the particular scrutiny of the stranger. This is Santo Antonio de Noto, whose graven image is doubtless preserved from that period when there was a large negro population, in the breasts of whom it was deemed important to keep alive the spirit of devotion by parading before them a holy person of their own colour, one who could sympathize with them and with whom they would feel no embarrassment in their confession. On parade-day the fronts of the houses are invariably bedecked with transparencies and bright-coloured flowers.

Procissão dos Passos.—One of the most notable processions is the Procissão dos Passos, which occurs on the fourth Sunday in Lent. Altars are

at this time built in the streets and small children are garbed as angels with wings of tinsel.

Ash-Wednesday's Parade.—The first procession of the year is on Ash-Wednesday.

The Breaking of the Crown.—A ceremony, perhaps more odd than any hitherto described, took place while the writer was among the islanders in the winter of 1888–89. This ceremony is known as "the Breaking of the Crown." It takes place six weeks after the death of a Portuguese king, in all the various lands and provinces over which the monarch ruled during his lifetime.

The old King of Portugal, Dom Luiz I.,[1] died October 9, 1889, and, according to ancient tradition and the custom of the kingdom, the Madeirans, like all true Portuguese, followed the example of their mother-country's people.

The Six Weeks' Mourning.—Hence for six weeks after the death of the king the island appeared shrouded in mourning. Black flags waved from the government buildings, the women dressed in garbs of deepest mourning, and many of the men

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[1] Chapter IV., Reign of Dom Luiz I.

wore bands of black cloth around their arms, hats, or sombreros.

At the end of the six weeks occurred the celebration before mentioned, known as "the Breaking of the Crown." This put an end to the mourning for the late sovereign, and, the latter having passed into oblivion, the new king was with rejoicing welcomed to the throne.

A Holiday Crowd.—What an excellent opportunity the day of that great ceremony afforded to see the people! The islanders from far and near flocked to Funchal.

Dress of the Countrywomen.—Among them were countrywomen, with their little gold-embroidered, dark-blue, scalloped-edged capes, fastened over their right shoulders and extending slantingly across the upper part of their velvet bodices (the latter fitting closely over loose white blouses, cut low at the neck and short in the sleeves) and passing gracefully under their left arms, there being secured by golden clasps. They all wore the bright parti-coloured skirts, their characteristic garb.

The women belonging to the poorer classes from the country wore large and various-coloured

A COUNTRY-LASS OF THE LABOURING CLASS.

A RICH YOUNG COUNTRY-LASS.

kerchiefs over their heads in place of other head attire.

The wealthier country lasses were distinguished from their poorer kinswomen by the little peaked caps, so peculiar to the island, and which they wore on top of their heads in place of the commoner kerchiefs.

Attire of Ladies of the Aristocracy.—The ladies of Funchal were dressed in black[1] from head to foot, which, by the way, is considered "full dress" by the Funchalese, without reference to the mourning attire for the dead king.

In the writer's endeavour on that eventful day to see the procession from a good point of vantage, he had a little adventure which here recounted may prove of passing interest. An acquaintance, Senhor José de Rosa by name, informed him that the Cathedral[2] would be the best—in fact, the only—place from which to view the day's proceedings satisfactorily.

A friend, a young New Zealander named Fink, wished to see the ceremonies. Consequently Fink

[1] Chapter XIV., Ladies' Dress.

[2] Chapter IV., Erection of the Cathedral; Bombardment of the Cathedral.

and the writer, under the guidance of Senhor de Rosa, started out together.

The Interior of the Cathedral.—Upon reaching the Cathedral, they pushed their way through a throng of people blocking the entrance and arrived at a small side door, which de Rosa opened. When they had stepped inside, the door closed behind them with a spring, and they found themselves standing at the top of a long, narrow flight of steps. The sole illumination was from a lighted candle set into a crevice in the wall near them.

The Underground Passage.—"Come wiz me, come wiz me!" said the Portuguese, excitedly, as they descended the stairs. "Zis is an underground pazzage. Et is vere ze monks and clergymans have zeir secret meets, and it brings us out in ze middle of ze Cathedral after ve go up anozer steps."

They had now reached the foot of the staircase, and proceeded along a narrow, dingy, underground passage-way, on either side of which stood a row of doors, some shut, some half-open, and all appearing to lead into rooms, dungeons, or places of secrecy.

A Throne-Room.—Through one half-open door they glanced in, and saw a spacious apartment, brilliantly illuminated and gorgeously furnished. In the middle of the room stood a throne, on which sat a monk clothed in a flowing scarlet robe. Around his waist was a golden girdle and in his right hand he held a little silver sceptre. About him on the floor knelt many monks and priests engaged in prayer.

The intruders hastened noiselessly on, and a moment later came to the foot of another staircase. Up this de Rosa plunged without a word, and they followed him. No light, not even a taper, revealed the way here, so that they had to grope along in utter darkness. The steps were slippery, crumbling, and far between.

Forcing an Entrance.—At the top of these stairs they arrived before a heavy oaken door, which had a huge iron handle. De Rosa gripped this and with all his strength gave it a turn.

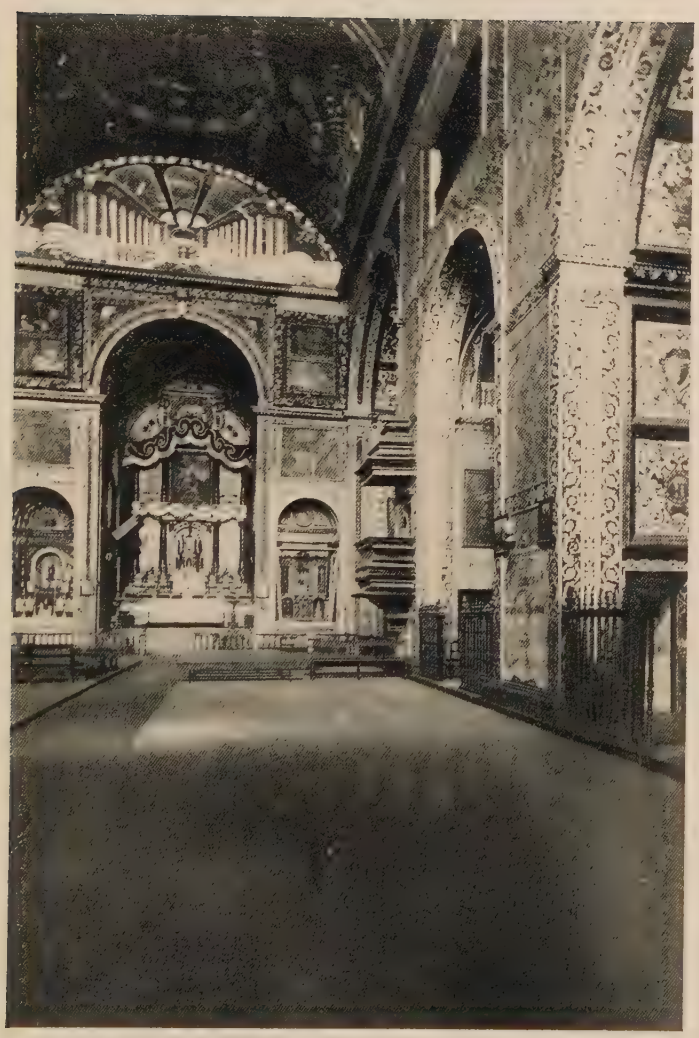
With a loud click the door swung open. So sudden and unexpected was this movement to those unprepared that a beadle who was leaning magnificently against the other side of the door was sent sprawling to the floor.

Something serious might have resulted then and there had not de Rosa, instantly perceiving the catastrophe, turned on Fink and the writer, who stood bewildered, and given them both a forceful shove which sent them spinning in with the tide of people. The wiry Portuguese quickly followed them, while the overturned beadle arose and looked about in blank amazement and fury on the "sea of upturned faces."

Making their way with the greatest difficulty through the thronging crowd, they at last arrived, very much out of breath, before a low iron gate, on the other side of which stood a monk. De Rosa made a low obeisance to the holy father and addressed him in Portuguese.

Where the Aristocracy viewed the Ceremony.—The gate was thereupon opened and they stepped inside. They were then presented to the monk, who turned and led them up a winding staircase. At the top they stepped into an open gallery, where the aristocracy of Funchal seemed to have taken up head-quarters. Richly-dressed ladies bedecked with costly jewels[1] and men in gay attire occupied long rows of velvet-cushioned

[1] Chapter XIV., Wearing of Jewellery.



INTERIOR OF THE CATHEDRAL.

seats. The three visitors still followed the holy father, and, walking along the centre aisle to where several seats still remained vacant, they were ushered into them. Their courteous guide then left them.

The Monument to the Dead Sovereign.—In the centre of the Cathedral a great monument had been erected, extending from the ground floor almost to the roof. Its sides were formed of the most exquisite tapestry, which hung from the top like great curtains, and was fastened at the bottom, giving the outward aspect of four solid walls.

Encircling the monument was a series of three galleries or balconies, one above the other, in the Chinese pagoda style, the largest at the base and the smallest at the top. These galleries were encompassed by burnished brass railings, draped with crape. Four doors opened onto each gallery. On the first or lower gallery six soldiers, attired in coal-black uniforms, stood like statues. They held their guns at rest, and their heads were bared. On the second, two small acolytes, dressed in long, flowing, red cassocks and short white surplices, walked about, attending to the

countless tapers which burned and flickered in brass candlesticks. The third gallery was vacant, and on the very summit of the structure rested a coffin with a crown on its top.

Every window in the Cathedral was darkened by a large black cloth spread over it.[1] The only light proceeded from the myriads of lamps and candles which, as on the monument, burned brightly in every direction.

The Music in the Cathedral.—Peals of music ever and anon rang out from a hundred voices, accompanied by an organ and a full orchestra. The writer and his companions remained for a long time interested spectators of all that passed. At last they took their departure, this time by a convenient side door.

The Procession in Honour of the Dead and Living Kings.—Outside the Cathedral[2] they found a good place from which to view the procession. Soon strains of martial music were heard approaching, and a large body of gendarmes went by at double-

[1] These cloths were to be dropped from the windows at the blast of the cannon without, announcing that the crown had been broken.

[2] Chapter V., The Cathedral Externally.

quick time, dispersing the crowd to either side of the street.

The Mourners.—Directly following were four gorgeously arrayed officials, mounted on fiery Arabian steeds. Then came the mourners, attired in short, loose, white gowns, tight-fitting knickerbockers, and long, black silk stockings. On their heads they wore immense hats encircled by crape bands, which were tied at the back into great bows; the latter looked like the wings of gigantic butterflies.

After the mourners came the delegates of Funchal, marching two by two in long, doleful procession. They wore black suits, swallow-tailed coats, and black silk hats. Next passed the firemen's band, playing a dirge.

The Military.—A break in the ranks was filled by three mounted officers, who came galloping along, followed by a body of soldiers three hundred strong.

The Crown-Bearer.—After these had gone by a solitary man approached, walking very slowly. He was enveloped from head to foot in black, and bore before him a small velvet cushion, upon which rested a crown. As he passed, every man

in the crowds along the street doffed his hat, while the women bowed low in deep reverence.

The Pall-Bearers.—They remained thus while a body of men clothed in black robes marched by; but when, in the midst of the latter, four pall-bearers appeared supporting a black coffin, all the immense throng of onlookers—the men, women, and children alike—fell upon their knees and, burying their faces, muttered a short prayer. The bells in the great Cathedral tower rang out solemnly.

The Prostrate Crowd.—The entire street presented one mass of prostrate forms until the arrival of a second band playing a dismal air; the crowds then arose to their feet again.

When the band had gone by, an immense man, with a gold-embroidered belt encircling his enormous waist, came along. Upon the belt was printed, in large gilt letters, "Delegação para Funchal." He bore in his hand a long sword. After him followed a squad of grenadiers.

This was the end of the procession, and as the last of the rear guard went up the street the writer and his party joined in the crowd and followed them.

The Platform Ceremony.—Arrived at the middle of the plaza, the procession halted. The soldiers drew up in a long line and the grenadiers mounted guard about a raised platform which had previously been erected. The man with the large waist ascended the platform and made a short speech. After this he descended, and a mourner, accompanied by the man in black who bore the velvet cushion, mounted the platform.

The Crown is Broken.—The mourner then took the crown from where it lay upon the cushion, lifted it high above his head, and held it there while he muttered something inaudibly. Then on a sudden he uttered a wild cry, and turning he hurled the crown to the ground below, where it broke into hundreds of fragments.

Cannon Blasts the Sorrow.—In an instant a cannon, close by, belched forth a thundering report, and for a moment afterwards the raised platform was completely enveloped in smoke. At this juncture the two bands, in unison, struck up a lively air; as the report of the great gun died away, answering shots were heard from near and far.

The procession then reorganized, and, the bands

changing their tune from the joyous strain to the dismal dirge again, the procession moved slowly away to perform a like ceremony in another quarter of the town.

Three Crowns must be broken.—The crown-breaking, it seemed, had to be thrice enacted before the mourning terminated. The writer and his acquaintances watched the procession till out of sight, and then, hiring a carro, took a short drive into the country.

Sorrow turned to Joy.—On their return to the town, about three o'clock, the three crowns had evidently been broken, for everybody seemed in high spirits. Fellows thrumming on guitars were going about in large bands, singing such songs as "God save the Queen," or, in this case, "the King," with the Portuguese version.

On their way up the main street the writer's party met and passed the entire procession once again. It now had a very festive appearance. The bands played gayly, the mourners talked and laughed together, the men in black robes were smoking cigarettes, the officers also were smoking, the Funchal delegates were cracking jokes, and the "turnout" looked very different

from that which had been seen in the morning.

"Long live the King!"—"The king is dead; long live the king!" This was no longer the cry. The dead king was now forgotten, for "the Breaking of the Crown" had been accomplished. "Long live the king!" cried all.

CHAPTER XVI

COMMERCE AND MONEY OF MADEIRA

Reis, the Standard Coin.—English money, which is current in Madeira, is more plentiful than the coin of the country. The standard government coin is prodigious, being the *rei* or *reis*, which, by the way, is never used in the singular number. The smallest coin in circulation is the *three-reis piece*, that almost necessitates the aid of a microscope to discover in one's pocket-book. Ten reis are about equal in value to one cent in American money and twenty reis to a penny in English currency; yet there is no higher denomination circulated by the Portuguese government in Madeira than the reis.

Charges in Reis seem Exorbitant.—The invalid is cautioned to consider carefully the foregoing statement before asking for his first hotel bill, as many instances are recorded in which sick persons, and especially those suffering from heart troubles or weak nerves, had violent attacks of

their respective maladies on the receipt of their first bills. To a hale and hearty individual unfamiliar with the country's currency a charge of twenty thousand reis for one week's board and lodging appears rather exorbitant, while the American and English equivalents—twenty dollars, four pounds—seem more reasonable. After all, there is a difference in the way in which a thing is expressed.

A Restaurant Adventure.—The writer himself, a healthy specimen, had his nervous system nearly shattered during his first week's residence in Madeira by the repeated shocks caused him by the receipt of bills charged in the one Madeiran denomination. The horrified surprise which he experienced when, after a modest repast at an apparently respectable restaurant, he was presented with a bill for *one thousand reis* is still fresh in his memory. It was the first meal partaken of by him on the day of his arrival in Madeira. The waiter who tendered the bill smiled, while the writer made swift and silent calculations as to his size and brawn and the chances he himself might have in a personal encounter or an attempt to escape. Hasty ocular measurement showed

that the door was five paces distant. Then the writer bethought him of a guide-book which he had in his pocket. He drew it forth and consulted a table of Madeiran currency. When he found that the amount of the charge against him equalled only about a dollar (four shillings), the sense of relief that he felt well-nigh overcame him, and he paid his bill and walked forth into the sunny street inwardly rejoicing that he was still a free man.

Weighty Coinage and Bulky Bank-Notes.—It was formerly burdensome to carry much money about one's person in native currency, on account of its inconvenient bulk and weight. But now bank-notes of various denominations down to a value equivalent to about four cents (twopence) are in general circulation, so that, while the situation has been improved so far as weight is concerned, bank-notes aggregating one dollar (four shillings) can in themselves make a bulky roll.

A well-meaning physician has been known to cause a relapse in his patient's complaint by presenting his first bill itemized at two thousand reis per consultation.

Invalids should have with them money ready for "tips" at all times.

The Invalid's Lump.—The writer recollects the alarm which he felt on the occasion of a meeting with an acquaintance who was a consumptive. A lump appeared over his left lung and bulged out his coat; and the writer, fearing some sudden, new development in the complaint of his acquaintance, nervously alluded to the abnormal growth and proposed a rest while he summoned a doctor. To his increased alarm, the invalid thereupon burst into a choky laugh, saying, "I'll show you what it is," and plunged his hand beneath his coat and dislocated the lump. The writer paled at this sight of what appeared to be self-inflicted torture, and the story of the wooden-limbed man who took off one of his arms and both legs at pleasure flashed across his mind as the consumptive drew forth the lump. It proved to be a bulky roll of bank-notes amounting to about one dollar in value.

The Post-Office: Stamp-Collecting.—The craze for collecting postage-stamps is a very marked characteristic of the post-office officials. To such an extent do they carry their philatelic mania

that letters rarely reach those to whom they are addressed with the stamps still in place. The stamp is almost invariably removed, and in the process of removal the letter as well as the envelope has sometimes been torn. There seems to be no way to obtain redress for this tampering with one's correspondence, as every official from the lowest to the highest seems to be imbued with the collecting craze.

When one goes to the post-office to buy stamps, the customary question is, "Cancelled or uncancelled?" This query somewhat puzzled the writer on his first experience at a local post-office, the more so as he did not quite understand the question, put to him in very bad English as it was. But, in some way unknown to himself, he conveyed the idea to the official that he wished cancelled stamps, and the great display of these from every country in the world, which was immediately spread before him for a choice, was quite bewildering. "Are any of these good to stamp letters with here?" he asked. The official replied in the negative, with an expression of great perplexity, which soon changed to a look of pity. The writer realized that he was being taken for an

imbecile. But at last matters were satisfactorily explained, and the proper stamps were procured.

It may be said in this connection that the stamps, like the money, descend into such low denominations that they are generally useless unless used in considerable numbers. For instance, the two-reis stamp (value, one-fifth of a cent) will rarely carry a bit of mail farther than the post-box into which it is dropped.

The Main Post-Office.—The main post-office in Funchal is at No. 51 Rua das Murças.

Rates at which Mail can be sent.—The mother-country being a member of the International Postal Union, mail can be sent from Madeira to countries that are in the union at the following rates, prepaid in stamps.

Books	10 reis for each 50 grammas (=3⅓ ounces).
Coins	cannot be sent by mail.
Commercial papers . .	50 reis up to 250 grammas, and 10 reis for each additional 50 grammas.
Gold jewellery	cannot be sent by mail.
Letters[1]	50 reis for each 15 grammas (=½ ounce).

[1] Letters to any place in Madeira or to Portugal or the Azores can be sent for twenty-five reis per fifteen grammas.

Money-orders	not issued to or in Madeira (drafts should be used).[1]
Newspapers	10 reis for each 50 grammas.
Patterns	20 reis for 100 grammas and 10 reis for each additional 50 grammas.
Postal-cards[2]	20 reis per card.
Registered letters	50 reis per letter.
Silver jewellery	cannot be sent by mail.

Telegraph.—Funchal is telegraphically connected with Porto Moniz, Ponta do Sol, Ponta do Pargo, Machico, Santa Cruz, and the light-house at Point St. Lorenzo.[3] Messages can be sent between any of the above towns at the rate of sixty reis for the first word and ten reis for each additional word.

Over the wire which keeps the light-house in communication with the authorities of the port

[1] Messrs. Blandy Brothers & Co., Rua da Alfandega, are responsible bankers. They are correspondents of J. P. Morgan & Co., New York; J. S. Morgan & Co., London; and Drexel & Co., Philadelphia. A letter from Blandy Brothers & Co. to the writer is given later in this chapter, under the caption Currency Denominations and Approximate Equivalents.

[2] Postal-cards to points in Madeira or to Portugal or the Azores can be sent for ten reis each.

[3] Chapter VIII., The Light-House.

of Funchal is transmitted the news of approaching steamers.

Cable Communication.—In the year 1874 the first cable was laid to Madeira; this was a monumental undertaking, for the lines were laid simultaneously from Brazil, from Lisbon, and from the Cape de Verde Islands to Funchal. This was the work of the Brazilian Submarine Telegraph Company, an organization of British capitalists, and served to place Madeira in telegraphic communication with the American and European continents. As will be readily understood, this was a momentous event in the history of Madeira.[1] In the early eighties a second line was laid between Lisbon and Funchal; and in March, 1884, the line from St. Vincent, of the Cape Verdes, to Funchal was duplicated. A cable has recently been laid to the Azores. The line from Brazil connects at Pernambuco.

Offices of the Local and Submarine Telegraph Companies.—The offices from which all messages are sent are situated in the Rua das Murças, at No. 3, opposite the post-office.

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[1] Chapter IV., The First Ocean Cable.

Cabling Charges to Different Countries.—The charges per word for messages sent by cable are as follows:

	Reis.
Austria-Hungary	378
Belgium	333
Denmark	363
France	318
Germany	363
Great Britain	348
Holland	348
Italy	363
Norway	385
Portugal	228
Russia	438
Spain	273
Sweden	400
Switzerland	333

A word exceeding ten letters in length is counted as two words. Three numerals equal a word. The name and address are charged for at the word rate.

Portugal's Income from Madeira.—Madeira yields an income of at least one million dollars annually to the treasury of the home government at Lisbon.

Letter from Blandy Brothers & Co.—Just previous to sending this new edition to press, the

author received a communication from Messrs. Blandy Brothers & Co., the leading banking firm of Madeira, in reference to the latest official rates of exchange.

Currency Denominations and Approximate Equivalents.—The letter, being authoritative, is herewith quoted in full, as it gives a clear and complete statement of the denominations of Madeiran currency, with their American and English equivalents.

BLANDY BROTHERS & CO., MADEIRA, GRAND CANARY, LONDON, AND REIMS. STEAMSHIP AGENTS—AGENTS FOR LLOYDS, AT MADEIRA AND LAS PALMAS. WINE MERCHANTS. LONDON OFFICES, 16 MARK LANE, E. C.

A. J. DREXEL BIDDLE, ESQ., PHILADELPHIA:

DEAR SIR,—Your favour of the 20th ult. duly received, and we have pleasure in giving you the following information.

The *par value* of the sovereign is Rs. 4500 (four thousand five hundred reis). The premium on gold at the present time is about 50 per cent., and the sovereign is quoted at 6600 or thereabouts; but, as the exchange varies from day to day, it is impossible to draw up a table of equivalent values such as you suggest.

A dollar (1000 reis) = 3s., *more or less*, at present value.

A bit (100 reis) = $3\frac{1}{2}$d. at present value.

Gold Coinage.—The English sovereign is current, but Portuguese gold is seldom or never seen.

Silver Coinage.—Half-dollar = 500 reis; 2-bit piece = 200 reis; 1 bit = 100 reis.

Copper Coinage.—Penny = 20 reis; half-penny = 10 reis.

Portuguese Bank-Notes (from £1 downwards): 5000, 2500, 1000, 500, 100.

We shall be pleased to furnish you with further information, if required.

We are, Dear Sir,
Yours truly,
Blandy Brothers & Co.,
C. W. Blandy.

Scarcity of Gold and Silver and Over-Supply of Bank-Notes.—The writer has found that not only gold but silver is getting scarce in Madeira, and that Portuguese bank-notes in various denominations down to the value of four cents (two pence) are in general circulation.

Lack of Coinage in the Provinces; Investments in Jewellery.—The towns-people of every class use the currency, while, on the other hand, the country-people invest their savings in jewellery. They rarely buy precious stones,[1] but the jewellers of Funchal do a large trade with them in

[1] While precious stones are not purchased by the country-folk, the ladies of the aristocracy in Funchal buy them frequently. Old-fashioned topaz jewellery from Brazil is the present fashion. See Chapter XIV., Ladies' Dress.

gold ornaments. Skilled labour is cheap and of a high degree of excellence. Ear-rings, pendants in the form of crosses and knotted bows, miniature guitars, machêtes, and bullock-carts arranged as brooches, are made in gold eighteen carats fine. False jewellery is rarely dealt in and never worn by the natives.

Jewellers are the Peasants' Bankers.—The peasant never places his money in a bank, as the offer of interest does not appeal to him. He distrusts the savings-fund institution that offers him three per cent. for the use of his hard-earned coin. "Me handy ma thousand reis 'hind ze bars ohf ze bigga banka, an' ze banka handy me backa thirty reis; nota mootch!" a native once said to the writer in explanation of his aversion to the banking system. Hence the jeweller is the banker of the peasantry.

Gold Linked Chains as Investments and as Currency.—A favourite investment is in tiny-linked gold chains, which the women wear as bracelets and necklaces and the men carry as armlets or wrapped about the peaks of their caps.

Gold must be Eighteen Carats fine.—When wishing to settle an account, the required number of

links are broken or twisted from a chain, for the gold whereof the chains are made is fine, pure, and pliable.

Leading Jewellers and Watchmakers.—The leading jewellers of Funchal are Sabino João de Freitas,[1] 42 Rua de João Tavira; J. R. Rebello, 46 Rua de João Tavira; Manoel M. Gomez, 6 Rua do Aljube; João Claudiano Rodriguez, 4 Terreiro do Pico; João da Rosa Silva, 9 Rua do Aljube; Vicente Julio de Faria, 29 Rua da Carreira.

The best watchmakers are Silvano de Freitas, 40 Rua dos Ferreiros; Portuense, 5 Entrada da Cidade.

The Commerce.—Though the chief native industry[2] is wine-making,[3] there is a superior output of musical instruments,[4] wicker-work, and needle-work.

Madeiran Lace and Embroidery.—There is a great demand for Madeiran needle-work in England,[5]

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[1] Sabino has an excellent assortment of precious stones.

[2] Chapter XXIV., Business Hours.

[3] Chapter XXIII., The Vine and the Wine.

[4] Chapter XIV., Music and Musical Instruments.

[5] This chapter, MADEIRA IN 1898, Embroidery Industry.

RUA DO ALJUBE, THE PRINCIPAL SHOPPING STREET.

and a considerable demand for Madeiran lace and ornamental needle-work in the United States. It is a great pity that many lovers and critics of the art of the needle are as yet so ignorant of Madeira's superior output, which is unexcelled.

F. A. Figuiera has opened a shop at 5 Rua dos Capellistas, for the supply of fine qualities of embroidery, either made up into articles of attire or in piece.

Dressmakers. — Experienced dressmakers are employed, and ladies' and children's clothes made to measure at very short notice. An assortment of edgings, insertions, wide pieces, handkerchiefs, and silk shawls is to be found at all times.

Dealers in Articles of Native Industry.—Other dealers in articles of native industry—feather flowers, embroidery, fancy baskets, osier-work, and inlaid-work—are Burlington Arcade, opposite the custom-house; Camacho & Rodrigues, Praça da Constituição; Gouvea, M. Firmino de, 51 Rua do Aljube; Rodrigues, José M., 12 Rua das Murças.

Tobacco.—A word here to smokers: a large assortment of good imported cigars and cigarettes can be had at 23 Rua do Aljube, and at

"Golden Gate," 7 Entrada da Cidade. Native-grown tobacco is scarce and of an inferior quality.

Other Products. — Staves brought from the United States are made into casks, and are then exported from Funchal in considerable quantities. Among other productions are sugar, molasses, guava jelly,[1] and cayenne pepper.

Sugar.—The cane[2] was introduced in the year 1432 and the first sugar-mill was erected in the same year. During the sixteenth century sugar was the staple product. The arms of the city of Funchal are five sugar-loaves.

In the year 1882 some two million six hundred and one thousand eight hundred and seventy pounds of sugar were produced, valued at forty-nine thousand pounds sterling. In 1883 the output was somewhat less, being two million three hundred and twenty thousand pounds, worth forty-three thousand seven hundred pounds. Of this thirty-four thousand one hundred and seven pounds' worth was exported.

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[1] Chapter XVIII., Guava.

[2] The growing of the cane is the leading industry in the neighbourhood of Fayal, as well as in many other localities of the island. Chapter X., Fayal.

Cane Spirit.—The production of cane spirit is quite large. In 1882 it was three hundred and twenty-seven thousand gallons, valued at forty-seven thousand nine hundred and forty pounds sterling; in 1883 it was one hundred and seventy-eight thousand gallons, of the value of twenty-five thousand three hundred and thirty-three pounds.

Molasses.—The best sugar is worth about three thousand seven hundred reis per arroba,[1] or sixpence per pound, in Funchal. One hundred kilos of cane produce from six and a half to eleven kilos of sugar and about seventeen decilitros of spirit. Two kilos of sugar of the first quality, one kilo of the second and third qualities, five hundred grammas of molasses (which can be distilled into spirit) can be produced from eighteen litros (four gallons) of cane-juice.

Cayenne Pepper.—Cayenne pepper is largely exported, being of a superior quality and of a most exquisite carmine colour that renders it desirable to the European gourmand.

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[1] Chapter VI., Market Value of Commodities.

Grain.—The cereal harvest scarcely suffices to supply the wants of the people.[1] The heavy import duty[2] frequently restricts the sale of *milho* (maize) among the people of the lower class, with whom it is a favourite article of subsistence.

Unprosperous Condition of Madeira.—Mr. George H. Hayward, the English consul to Madeira, said in his report for 1883, "This island is not in a prosperous condition,[3] and as long as the mother-country does not modify its taxation, remove restrictions on shipping and trade, open a lazaretto for quarantine purposes, and undertake useful public works in the island, it is useless to hope for any permanent improvement."

Shipping Concessions for Madeira.—On May 2, 1895, United States Consul Jones notified the State Department at Washington that a telegram had been received in Funchal by the civil governor of Madeira from the minister of foreign affairs at Lisbon, that read as follows: "A decree is published to-day in which foreign vessels are given liberty to carry cargo between Portugal

[1] Chapter XIV., Famine.

[2] This chapter, Portugal's Income from Madeira.

[3] Chapter XIII., Bad Government.

and the island of Madeira; also, continuing the law for five years exempting all vessels with cargo from tonnage dues in the port of Funchal."

Although some of the subjects embodied in the following reports have been already touched upon in this work, there is, nevertheless, considerable additional information contained in them. Moreover, coming, as the reports do, from United States Consul Jones, they are authoritative. The writer, therefore, deems that his treatise would be incomplete if they were omitted.

Letter from the United States Department of State. —Permission to republish them has been given in the following letter:—

DEPARTMENT OF STATE, WASHINGTON,
July 25, 1899.

A. J. DREXEL BIDDLE, ESQUIRE,
DREXEL BUILDING, PHILADELPHIA, PA.

SIR,—In reply to your communication of the 21st instant, asking permission to embody, in your forthcoming work, to be published in two volumes in London and America under the title of "The Land of the Wine," the report of the American consul to Madeira, I take pleasure in informing you that you have this permission.

It is the aim of the Department to give the widest possible

circulation to the consular reports, which are made for the benefit of American trade and manufacturing interests.

Very truly yours,

WM. H. MICHAEL,

Chief Clerk.

The consular reports follow.

Value of a Year's Export of Wine to the United States.—The consular report of 1896 shows for that year exports of Madeira wine from Funchal declared for the United States to the value of $4,201.19.

AN ACCOUNT OF MADEIRA IN 1897.

Consul Jones sent an undated communication from Funchal, received by the Department October 15, 1897, as follows :—

A Watering-Place and Health-Resort.—Madeira is a watering-place and health-resort, and is not of commercial importance to any great extent. People come here in search of health, rest, and pleasure. Its mild and equable climate has been advertised for so many years by the travelling public that it has become the standard by which all other health-resorts are compared.[1] People coming here are generally equipped for the season, and want only the little things that

[1] Chapter IV., Why Madeira is Especially Interesting to the World; Chapter XI., Warning to the Invalid.

were left behind, forgotten in the departure. The season begins here about the 1st of October and continues till June, and, although Madeira is not on the regular route of the American traveller, more Americans were here last winter than were ever here before in one season. The many lines of steamers calling regularly make this island a coaling-station of importance. A table is appended showing the different lines that stop regularly. Besides these, many other steamers call, as per advertisement, and training-ships, war-vessels, and yachts of every nation are regular visitors. The quiet waters and sheltered bay are well adapted for training and practising purposes.

American Staves for Wine-Casks.—The principal imports to Madeira from the United States are wood staves, lumber, petroleum, corn, and wheat. All the wine-casks used here are made from American staves. Very little corn is grown on this island—so little that it can hardly be called a local product. Corn was formerly brought from Morocco. This is yellow corn, and was brought in bulk by sailing-vessels. The destruction of the Morocco crop in 1893 by locusts caused the dealers to buy more from the United States, and the Argentine Republic has also come in for its portion. The duty on corn has been fixed at one-half cent per pound. Madeira grows about one-sixth of the wheat required for local consumption. This never reaches Funchal, but is ground in the little water-mills of the country. Flour is not imported into Madeira. The government requires that all the wheat of Portugal must be exhausted before foreign wheat can be imported; the quantity that each shall buy is then

STEAMERS TO MADEIRA.—*Regular Lines of Steamers calling at Madeira*[1]

LINE.	Nationality.	Sailing.	Point of Departure.	Destination.
Union Royal Steamship Co. . .	British.	Weekly.	Southampton.	Cape of Good Hope.
Castle Royal Mail Packet Steamship Co.	British.	Weekly.	London.	Cape of Good Hope.
African Steamship Co. . . .	British.	Fortnightly.	Liverpool.	West coast of Africa.
British and African Steamship Co.	British.	Fortnightly.	Liverpool.	West coast of Africa.
Red Cross Line	British.	Fortnightly.	Liverpool, *via* Lisbon.	Para.
Booth Steamship Co. . . .	British.	Fortnightly.	Liverpool, *via* Lisbon.	Para.
Woerman Line	German.	Fortnightly.	Hamburg.	West coast of Africa.
Sud-Amerikan	German.	Weekly.	Hamburg.	South America.
Forwood Line	British.	Weekly.	London.	Madeira and Canaries.
Impreza, Insular	Portuguese.	Fortnightly.	Lisbon.	Azores.
Impreza, National	Portuguese.	Fortnightly.	Lisbon.	West coast of Africa.

[1] Chapter VI., All about Steamship Routes.

FUNCHAL BAY.

apportioned to the different dealers. The mills and dealers are registered, and the larger mills are not allowed to sell to the smaller. Each buys on its own account, or through its own dealer; all is done through governmental permits. The quantity to be imported is decided in August of each year, and at the same time the duty is fixed. The duty for this year is one cent per pound.

IMPORTS IN 1897.—*Imports of and Duties on Goods imported into Madeira from January to July, 1897.*

Countries.	Value in Gold.	Duties.
United States[1]	$217,530	$68,131
Great Britain	322,288	112,243
Argentine Republic	44,676	9,251
Germany	40,305	16,621
Morocco	11,645	2,627
Africa	6,761	1,505
Austria	19	8
Portugal	2,626	355
Spain	673	259
China	368	598
Italy	2	.72
India	409	671
Holland	233	369
Switzerland	189	21
Total	$647,724	. . .

[1] The imports from the United States in the corresponding period (January to July) of 1896 amounted to $120,370; the amount of duty paid was $64,393.

EXPORTS FOR THE UNITED STATES IN 1897.—*Value of Exports declared for the United States at Funchal during the Fiscal Year ended June* 30, 1897.

Articles.	Quarter ending—				Total.
	Sept. 30.	Dec. 31.	March 31.	June 30.	
Wine . . .	$2,627.02	$1,244.85	$4,060.97	$2,236.33	$10,169.17
Wicker-work . .	.....	.....	211.92	.....	211.92
Madeira industry and antiquities. . .	.....	.....	.....	239.28	239.28
Total . . .	$2,627.02	$1,244.85	$4,272.89	$2,475.61	$10,620.37

STATISTICS OF TRADE FOR 1896 AND 1897.

Consul Jones sent from Funchal the following statistics of trade:—

Trade Statistics.—The imports into Madeira in 1897 were valued at $1,165,677, against $830,032 in 1896. Coal, cereals, and dry goods were the chief articles. The exports were $1,324,768, against $938,631 in 1896, wine, the most important export, figuring at $895,732 in 1897. The trade with the principal countries in 1897 was:—

Countries.	Exports.	Imports.
Great Britain . . .	$483,949	$668,846
Russia	187,613	861
Germany	302,263	91,052
Morocco	248	16,648
France	170,853	17,139
America	549	205,599

Commerce and Money

Madeira in 1898.

The island of Madeira is situated between 32° 37′ and 32° 49′ north latitude and 16° 31′ and 17° 16′ west longitude. It is thirty-eight miles long from east to west, and about thirteen miles in breadth. A central or dividing range of mountains runs the entire length of the island. The highest peak attains six thousand feet, and the average height of the range is more than four thousand five hundred feet. The mountains influence the climate, and consequently the vegetation of the island The fruits and grain of Europe and America are cultivated to an elevation of two thousand six hundred feet above the sea-level, whilst the sugar and sugar-cane, as well as tropical fruits, grow on the lower grounds, where the climate is genial and the soil stronger.

Water-Supply.—The supply of water for the crops depends entirely on irrigation,[1] as during the summer months no rain falls on the island. A portion of the heavy rains that fall during the winter months is stored on the mountain sides, and from these the water is distributed during the summer through stone channels, called "levadas." Some of these levadas are fifty and seventy miles long, carrying water in a zigzag way from the northernmost part of the island to the southernmost. Wherever water can be carried, crops can be grown. Water is the most valuable property in Madeira. As a rule, levadas are owned by corporations, but the longer ones are owned by the government. These are under the

[1] Chapter XVII., Irrigation.

control of the minister of public works, an officer appointed from Lisbon.

The population of Madeira, by the last census, was one hundred and forty thousand, and the island is assumed to have an area of three hundred square miles. A large portion of the surface is unfit for cultivation. Above the two thousand six hundred foot line is the region of the bilberry, heath, and broom, and it is too barren and exposed for the production of grain. This constitutes fully one-third of the island, and a large portion of the remainder is either barren rock or too precipitous for tillage; so that probably not more than one-half the island is in actual cultivation.[1]

Density of the Population.—The wonderful fertility of the island is shown by the fact that one hundred and fifty square miles support a population of one hundred and forty thousand, a population[2] more dense than that of Belgium, the most dense country of the continent of Europe, where there are four hundred and eighty-five persons to the square mile; this, too, without a sufficient water-supply and with the most rude and primitive utensils for cultivation.

Funchal is the capital of the island, and is the third city in Portugal. Being a health-resort for all Europe, it is supported almost entirely by foreigners. The Portuguese government has at last recognized this, and has abrogated most of the laws that discriminated against the stranger. The passport system, so long in vogue, has been annulled, and

[1] Chapter VII., Legend of the Fountain; Chapter XIV., Famine.

[2] Chapter XII., Population.

persons coming here to stop for some time can bring with them, free of duty, household wares, such as linen, silver, etc., or these can follow their owners within a limit of thirty days, provided they show signs of use.

The annexed tables[1] explain themselves. The export tables do not give America a fair rating. As we have no regular direct line of steamers from here to America, our exports are shipped *via* England and are placed by the customs to the credit of that country. Exports to America are put down at $549.91, when, as a matter of fact, our invoices show exportations to the value of $6,715.88 for the quarter ended December 31, 1897. The value of $549.91 was shipped direct to New York by the Portuguese Peninsular Line, that touches here only when bringing cargo to the island.

Egg Export.—The export of eggs[2] to South Africa has developed, and is remarkably large for this island. About thirty tons were exported in 1896, and between five hundred and six hundred tons in 1897. The bulk of these went to Johannesberg. As a direct line of steamers has been established between New York and Cape Town, our people should get a large portion of this trade. The Madeira eggs are bought here in the market at two dollars per hundred, and are sold in Johannesberg at ten dollars.

Embroidery Industry.—I wish to call attention to the embroidery industry; the increase of exports in this line, over last year, is twenty-five tons. The bulk of this has gone to

[1] Statistics of Trade for 1896 and 1897, *supra*.

[2] Chapter VI., Market Value of Commodities; Chapter XXIV., The Domestic Fowls.

England and Germany, these countries having agents here that buy the work.

T. C. Jones, *Consul.*

Funchal, July 25, 1898.

Letter from United States Consul Jones to the Writer.

At the writer's request to Consul Jones that he pen an account of the present-day situation at Madeira for inclusion in this volume, Mr. Jones wrote the following:—

Consulate of the United States,
Funchal, July, 1899.

My dear Mr. Biddle:

I remember your visit to this island very well indeed, and your being at the Carmo Hotel Annex on the night of the row.[1] Rather a stirring night that!!

The New Pier.—Madeira has recently improved wonderfully. A beautiful new pier[2] has taken the place of the old tumbled-down wall that stood there, a disgrace to our beautiful city.

The Breakwater.—A breakwater[3] has been built connecting the Loo Rock with the shore, and, instead of taking boats as they once did to reach the rock, the soldiers now march eight abreast along the solid breakwater to the stairs that

[1] Chapter XIII., The Fight of 1889.

[2] Chapter V., Present Manner of Landing.

[3] Chapter V., Present Manner of Landing.

UNITED STATES CONSUL JONES RIDING THROUGH THE CARMO GARDENS.

lead up to the fort on the top of the "Loo." Here, on the top of this picturesque rock, standing eighty feet above the sea-level, the flags of the different nations are saluted as they float from the masts of the different war-ships.

Natal Day of the King and Queen.—From this rock the cannons salute the anniversaries of the king[1] and queen, for they have the same natal day. They tell us of Independence Day and other great events and happenings in the life of old Portugal. This fort is armed with fourteen guns, and the mariner sees the red light displayed there at night fifteen miles away.

Carlyle said, "Happy the country that has no history." Portugal has had no history for many years, yet she might be happier were her debts paid and her money at par.[2]

The Asphalt Road.—From the breakwater to the pier a new road has been built. It is broad and level and well laid down in asphalt.

The Bay and its Shipping.—Towering cliffs on the one hand and a summer sea kissing the wall on the other. By the road-side here and there are seats cut in the basaltic rock and hid away in the nooks of the cliff. As you sit on these cosey seats or walk on the polished road, the bay and its shipping are before you. The bay[3] is rarely without its man-of-war and its yacht. While I write an English and a French man-of-war are lying just off the Loo Rock. A graceful French sailing-yacht and other vessels are rolling lazily in

[1] Chapter IV., Dom Carlos I., the Present King.

[2] Chapter XVI., Letter from Blandy Brothers & Company.

[3] Chapter V., In Funchal Bay.

the evening's sunny sea, and outside the big "Norman," of the Union Line, is coming in from the Cape of Good Hope.

Praça da Rainha.—A new praça has been built. It stretches along the new road towards the Pontinha—Breakwater. Trees, plants, and flowers are there, as if by magic. It is most wonderful how trees and plants grow here. The New Garden is not fifteen years old, yet palms are growing there that would measure five feet across the stump. An oak standing in the Carmo Garden not fifty years old has a circumference of more than twenty feet. A seat of boards was put round this tree and fastened to it. The growth pulled the seat apart again and again. The seat is there now, but standing alone and well out from the tree. A tree fern in Mr. Reid's quinta has reached the height of thirty feet and more above the ground. Pavilions and a band-stand adorn this new praça, or "Praça da Rainha,"[1] as it is called, and flowers and creepers galore.

The Electric-Light Plant.—The best recent improvement for Funchal is the plant of the electric light. Arc-lights are on the pier, on the Pontinha road, in front of the new theatre, at the entrance of the city from the sea, in the praças and other public places. No city shows up better from the sea than Funchal. Coming in at night on a steamer and standing on deck, the long line of electric lights on the Mount Road and the curved lines of shorter streets give it the appearance of a city of a population of a hundred thousand, when as a matter of fact the population is a scant forty thousand, according to the last census.

[1] Chapter VII., Praça da Rainha.

In the day the wonderful green mountains, covered with trees and tangled vines, and lower down sugar-cane, bananas, and other cultivated plants, add their strength to this world of green.

The terraced gardens, the brilliantly white houses rising as they recede from the shore, add to this sunshine and perpetual summer, and you have a fairly good picture of Funchal as seen by a stranger for the first time. Captain Marryat says, "I do not know a spot on the globe which so astonishes and delights upon first arrival as the island of Madeira."

The Tramway.—Another improvement is the tramway running from the pier to the eastern part of the city and the station of the Mount Railway.[1] A ship coming in with cargo or for coals must stop here for from three to five hours. It is such a luxury for the passengers to stretch their legs on shore, and get a square meal of fresh meat, vegetables, milk, and eggs. Then half an hour on the Mount Railway takes them to the Mount, where they can have a walk in the Mount Park and look at the city spread out below, and beyond at the bay and the shipping.

Omnibuses.—Or, if they like it better, a line of 'buses runs from the pier to Reid's New Hotel.[2] No hotel in the world has a finer situation than the "New:" it stands on its beautiful grounds on a bold cliff two hundred feet above sea-level and commands the bay and shipping. It stands at the beginning of the beautiful New Road.

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[1] Chapter VII., Railway and Tramway.

[2] Chapter VI., The New Hotel.

The New Road the only Level Road.—This road follows the sea for six miles to the village of Camara de Lobos, and is the only level road on the island. Here you can have a drive or a gallop or a bicycle race. This road is margined with plane-trees, which cast a grateful shade at all hours of the day, and pretty white cottages in terraced gardens dot the way and mark the thrift of the garden-farmer.

Hoping to see you out here again,

I am, very respectfully,

Your friend,

T. C. Jones.

Letter from the United States Department of State.

The writer desires to make public acknowledgment of the great courtesy shown him by the State Department, through whose kind offices he is enabled to include the very latest trade statistics of the Madeira Islands as he goes to press with the present work.

The following letter from the State Department will serve as a fitting introduction to the report:

Department of State, Washington,
December 17, 1900.

Drexel Biddle, Esq.,

228 South Fourth St., Philadelphia, Pa.

Dear Sir,—Replying to your letter of the 12th instant, addressed to Mr. Michael, which has been referred to this

bureau for answer, I have to state that inasmuch as the report requested by you is just about to go to press, we think it best to send you a copy of the statement on the trade of Madeira that will appear in the forthcoming edition of the "Review of the World's Commerce." The report of Consul Jones, of Funchal, is too long to copy, especially as it contains a number of tables, of which the following is a brief summary.

Very truly yours,

FREDERIC EMORY,
Chief, Bureau of Foreign Commerce.

STATISTICS OF TRADE FOR 1899.

Exports in 1899, says Consul Jones, of Funchal, were valued at $1,560,800, and consisted chiefly of embroideries ($266,700), wine ($876,700), butter ($161,100), eggs ($104,600), and fruits ($41,400). Exports to the United States amounted to $15,900, over $14,000 of this consisting of wine. Imports from the United States were valued at $504,800, and embraced corn, wheat, petroleum, and staves. Wheat is the most important item in this list, amounting to $331,400; corn was valued at $104,400. The total value of imports was $1,847,700. A considerable quantity of tobacco, says the consul, is brought from the Azores, and, not paying customs duties, does not appear on the books.

The city of Funchal is now lighted by electricity.

Increase in Communication with the United States Advocated.

American Vice and Deputy Consul W. J. G. Reid makes a plea, in his latest report to the Department of State at Washington, U. S. A., for an increase in direct communication between the United States and Madeira. The writer is in thorough sympathy with Mr. Reid's views of the situation, and joins his wishes with those of Mr. Reid's that direct communication may be rapidly opened up. Mr. Reid writes:—

"It is deeply to be regretted that we have no regular line calling here from New York, as this would certainly immensely increase the trade between America and Madeira. Once a year a German steamer calls here from New York with a large number of passengers, who all complain of the lack of steamers stopping here on their way to the Mediterranean.

"The import trade with this island is mostly with England and Germany. The latter sends travellers regularly, and her trade has increased largely.

"For many years American houses have completely

neglected trade here. The only business done is in wheat, corn, staves, and petroleum. Lately, Russian oil has taken the place of American, but since the new commercial treaty has come into force the trade will go back to America."

Part V

The Flora

BOM SUCCESSO WATER-FALL.

CHAPTER XVII

AGRICULTURE AND VEGETABLE RAISING

Irrigation. — Cultivation in Madeira is dependent to a great extent upon irrigation.[1] The scarcity of rain on the island has been mentioned in a preceding chapter. There is a much larger fall of rain in the highlands, however, than in the lower regions. Though there are streams in plenty which seldom become dry, yet the sources of these are up in the mountains, and the water, dashing from towering heights into deep ravines, is difficult to obtain where it is needed.

Levadas.—But here are the *levadas*, a part of Madeira's excellent system of irrigation. Mountain streams are stopped far up near their sources and diverted into these *levadas*,—channels built of masonry or constructed in the solid rock,—which conduct the water to the cultivated lands below, where it is dealt out for a period of several

[1] Chapter XVI., MADEIRA IN 1898, Water-Supply.

hours on stated dates to the land-owners who have obtained a right to its use.

The Opening of the Sluices.—The opening of the sluices is under the direction of the "levadeiro," and great excitement prevails among the agriculturists[1] when the hour at which they may expect their water-supply arrives. Considerable amusement is afforded to the disinterested sight-seer if he be present on such an occasion, for the natives, realizing the short space of time that they have in which to irrigate their fields and fill their water-tanks, seem to lose all self-control at sight of the first gush of water, and dash hither and thither, waving their arms and yelling like madmen. Their apparently frantic conduct and the unsystematic way in which they go about this work are rather remarkable, in view of the fact that the irrigation of their fields is of necessity not a novelty to them.

Vegetable Products.—The staple agricultural product is the grape.[2] Among the vegetables grown for the most considerable consumption are

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[1] Chapter VIII., Farming Country.

[2] Chapter XXIII., The Vine and the Wine.

A FARM.

the *batata* (common or Irish potato), *inhame* (yam, or Indian potato), and *batata edulis* (sweet potato), the latter yielding three or four crops annually and being highly esteemed as a delicious article of diet.

Pigs, and the Position they occupy in the Peasant's Household.—The leaves of the sweet potato plant are fed to the pigs, which express their gratification over such food in more clamorous grunts than on receipt of the daintiest swill. And the preference of the pig is carefully regarded, for the pig is the poor man's pet. A superstitious belief that it brings fortune to its owner is probably the explanation of the respected position which it occupies as a member of the peasant's household. For it receives various polite attentions and is further honoured by being one day slain, to be served up as a principal dish at some religious celebration,[1] its flesh being on occasions of festivity the prescribed food.

Another Staple Vegetable Food.—*Abobora d'agua* (pumpkin) is also a staple food, and its vine is frequently trained over the straw-thatched

[1] Chapter XV., Fête-Days and Religious Celebrations.

hut of the countryman. *Pepinella* (a variety of cucumber) is also grown extensively, and is in season during the winter months. *Nabo* (turnip) and *cenoura* (carrot) are in season throughout the year, and *couve* (cabbage) and *cebola* (onion) produce several crops annually; the latter, called root-food, attains a high degree of excellence in Madeiran soil and is exported extensively.

Leguminous Plants.—The principal leguminous plants cultivated are *bajinha* (French bean), *lentilha* (lentil), *Grão de bico* (chick-pea), *tremoço* (lupine), and *feijoeñ* (haricot-bean). The vegetable last named constitutes an important article of subsistence to the country-folk, who partake of it daily in the form of a *sopa* (soup).

Seixal, and the Road Thither.—There is a road from S. Vicente to Seixal that is especially famous for the beauty of the scenery which it commands. A journey by rêde can be comfortably made from S. Vicente to Seixal in a little more than an hour and a half. The road passes through a district of many beautiful water-falls and sometimes barely escapes the dash of the water where it is tunnelled through the rock to avoid the water's dash. Here a mighty sheet

comes plunging over a cliff and thunders into a stream directly at the road-side, and again, in this fairy-land of water-falls, sparkling mountain torrents plunge over great heights into mountain streams at either side of the road. Accommodations may be had at the villa of Donna M. Freitas,[1] situated picturesquely upon a stream of lava[2] that continues as a reef into the sea. This lava formation is of comparatively recent date, and hence would argue against the remoteness of date when volcanoes became extinct. Seixal is in the heart of a famous grape-growing district, and is the source of much good wine. The approach to Seixal from the sea is very charming. The pretty little village extends from the water's edge back to a gorgeous ravine abounding in beauty and enclosed by towering mountains. Through it runs and scurries a crystal stream to the ocean, and in one place a silvery sheet falls from a mountain into the stream.

A leisurely hour's walk from Seixal brings the pedestrian to the neighbourhood of the Ribeiro das Fontes, where a rare shrub known as "mo-

[1] Chapter VI., Lodging at Seixal.

[2] Chapter IX., Lava.

cano" grows in luxuriance. The presence of this shrub here in Madeira has been a cause of much speculation to botanists.

Rabaçal.—Here is another fairy-land of waterfalls situated some seven hours' journey by rêde from Seixal, or more easily arrived at by taking a local steamer[1] from Funchal to Calhêta (a two hours' ride), and proceeding from the latter point by rêde (a further distance, occupying some three hours). (The charge for a round trip per rêde and two bearers, if made in the same day, is 1600 reis, and 2000 reis if the trip is made in a two days' jaunt.[2])

Lodging may be had by those having permission[3] from the authorities in Funchal to stop at the house of the engineer at Rabaçal.

Adjacent to the engineer's house are two *levadas* which collect the head-waters of the Ribeira da Janella and conduct them by separate tunnels from the mountain fastness afar to

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[1] Chapter VIII., By Steamer.

[2] For further rates of hire, see Chapter VII., How the Rêde should be hired.

[3] Directions as to how and where this permission can be obtained are given in Chapter VI., Lodging at Rabaçal.

the south to irrigate the parishes of Fajaã d'Ovelha, Calhêta, Prazéres, and Estreito da Calhêta. One of these *levadas* is of old and the other of recent construction. The latter, built during the years 1863–1877, has a tunnel 2575 feet long, extending through the mountain at a height of 2975 feet above sea-level. It has its source at the springs of Vinte Cinco Fontes and Fontes do Cedro, but a short distance from the source of the older and upper *levada.* This older levada was constructed to secure the waters of the Ribeiro do Risco, and was in the course of construction during the years 1836–1860.

The patience and perseverance attending the construction of this *levada* brings to mind the almost superhuman persistency of the ancient Egyptians in the building of their mighty Sphinx and Pyramids. The builders of this *levada* must have been men having character something akin to that possessed by the builders of the Pyramids and Sphinx. During many years the Madeirans worked, day in and day out, chisel and mallet or pick in hand, and suspended over the edge of towering cliffs, where they were exposed to the discomfort of dripping and splashing water,

cutting the channel on the face of the precipices.

The completion of this *levada* marked a triumph in the art of masonry. It is a tunnel some 1400 feet in length and driven through the mountain at a height of some 3430 feet above sea-level.

About a half-hour's distance from the house of the engineer is a mighty amphitheatre where a great torrent of water plunges down the mountain side for a thousand feet in streams and small and large water-falls. The perpendicular sides of the mountain forming this amphitheatre, and over which the torrent falls, are clothed in luxuriant foliage of every description: ferns, laurels, and rich leafage of many kinds are interspersed with brilliant coloured flowers, extraordinarily luxuriant by reason of the constant spray upon them from the descending waters.

The floor of the amphitheatre is carpeted with beautiful mosses and grasses.

Paül da Serra.—Not far from Rabaçal is the lofty marsh of the Paül da Serra, 5000 feet above sea-level, and a desolate waste bathed in vaporous sea-drift and heavy clouds. Here there is excel-

THE RABAÇAL WATER-FALLS.

SCENE IN FUNCHAL—A RIBEIRO.

lent shooting of woodcock[1] to be had, for these birds abound in the mist-hung thickets of the Paül. The best time for shooting is at night-fall, when the birds are astir in search of food.

Ribeiros.—It has already been told, in the first part of this chapter, how the *levadas* are made to carry fresh water from the mountain springs to the lowlands for purposes of irrigation. Three mountain streams find their way to the sea through Funchal, crossing the city at different points. They are called *ribeiros.* Their currents are hemmed in on either side by tall, massive walls, the necessity for which is ordinarily not apparent, as the streams appear to be mere brooklets that dance or trickle along over the stones and pebbles.

A Freshet.—But when an unlooked-for freshet or a rapid melting of the ice in the snowy and cloud-bathed regions fills the mountain streams with water to overflowing, the dams constructed near their sources burst and a roaring torrent descends to the lowlands with force sufficient to

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[1] Chapter XXV., Birds procreating in Madeira, Woodcock.

carry everything before it.[1] At such a time the necessity for the stone barricade is apparent, for, though it may not overflow its confines, the turbulent current sometimes tears bridges from their fastenings and sweeps them into the sea.

Water-Spout and Flood of 1803.—On Sunday the ninth of October, of the year 1803, heavy rains fell on the mountains and a water-spout burst there. It was near the hour of midnight when down the *ribeiros*, which were not walled in then as they are now, came rushing a mighty torrent. Houses were soon surrounded by the surging water and carried out to sea.[2] The oldest church in Funchal, Nossa Senhora do Calhare, which was built by João Gonçalvez Zargo, was completely swept away. Not a vestige of it now exists.

It is related that one of the Portuguese nobility had given a grand ball that night and that many great people were in attendance. The nobleman's house, the scene of the entertainment, was lifted clear of its foundations and carried in an upright

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[1] Chapter XXIII., The Season for a Freshet.

[2] Chapter XXIII., The Flood of 1803.

position on the crest of the rushing water out into the ocean. There for some moments it floated entire, and at the brilliantly illuminated windows the many guests were descried vainly struggling and calling for help. Slowly the building sank beneath the waves and every one was lost.

The confession-lists of the priests at this date showed the loss of some three hundred lives. But as the flood proved particularly disastrous in a quarter of the city where there were many boarding-houses and squalid hotels occupied by sailors and other transients, as well as houses of ill-repute containing women whose names were not on the confession-lists, there were probably some 450 or 500 lives in all lost. After the flood had subsided, bodies that were found were carried to the church entrances for identification. They were piled one upon another, the dead and the dying together, and in the turmoil and excitement the latter received no attention. Many were the tragic endings of those who retained sparks of life which might again have been fanned into flame by proper medical care and attention.

On the morning following the flood the sun's light revealed heaps of dead and dying people and cattle piled with débris in the streets. These bodies were finally collected, covered with tar and pitch, and burned. Pandemonium reigned in town and country for many days after the disaster. The flood was pretty general all over the south side of the island—Funchal, Machico,[1] and Santa Cruz suffering most. The country-people flocked to the town and the towns-people flocked to the country, a fear pervading the lower classes that the end of the world had come. The rain began afresh, and heavy clouds hung low over land and sea; there was but dusky twilight even during the midday hours. In despair and terror people rushed through the streets day and night bearing torches and looking for their lost ones; then further search was hopeless, for the bodies were burned.

When the streets had finally been cleared of the débris and corpses the authorities ordered new bonfires lighted for the purpose of fumigation.

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[1] Chapter VIII., Art Gallery in the Chapel of the Sacrament, second paragraph.

RIBEIRO FRIO BRIDGE.

Now, although the statement may seem heartless, it is, nevertheless a fact, that there has been one lasting benefit resulting from this flood of long ago:—

The water-spout which burst in the mountain district, probably caused, as one scientist explains it, by two contrary currents of air giving a rotatory motion to the mass of air which separated them, broke up and transported heavy sections of earth and rock from the interior to the ocean bed directly in front of Funchal. The soundings and anchorage of the harbour were thus made, and have remained, several fathoms less profound.

CHAPTER XVIII

FRUITS

Varieties of Fruit.—The fruits which grow in the most considerable abundance and excellence are the *banana* (banana), loquot, *figo* (fig), *goiaba* (guava), *uva* (grape), *pera* (pear), *pecego* (peach), *maçã* (apple), *maçã ananaz* (pineapple), *damasco* (apricot), *ameixa* (plum), *goiaba* (Cattley guava), custard-apple, *manga* (mango), pitanga, alligator or avocado pear, *laranja* (orange), Tangerine orange, *tamara* (date), *limão* (citron), *limo* (lemon), *groselha* (gooseberry), grandillas, Tabiaba and red banana.

Guava.—Of these the guava deserves especial mention, for it is an exceptionally fine fruit, grows to perfection in the Madeiras, and constitutes a staple article of exportation. It is about the size of a peach, has a very rough skin, no stone, but tiny kernels.

Pineapple.—The pineapple, the cultivation of which is now a leading industry, is another de-

A GROVE OF BANANA-TREES.

licious fruit that attains a degree of excellence in Madeira unequalled elsewhere, though, oddly, it is not a native product, but has been introduced.

Citron.—The citron, grown for confection, is exported in large quantity.

Opuntia.—The opuntia somewhat resembles the pear, and is a wholesome and nutritious food.

Date-Palm.—Certain botanists have observed that the date-palm grows exclusively in those localities of the world wherein the banana-tree thrives. In Madeira the date-palm attains an average height of forty-five feet and produces bunches of fruit which weigh from fifty to seventy-five pounds each.

Banana.—A banana-tree, which bears fruit all the year round, is from fifteen to twenty feet high. The leaves are large and pendulous. The trunk is usually about twelve inches in diameter, but of so soft and spongy a texture that it may be severed with a single stroke of a heavy blade. The fruit generally grows in two large clusters, comprising from thirty to a hundred bananas in each. When the cluster is gathered, it is necessary to cut off the stalk, as the omission to do so would prevent its bearing again.

There is an ancient superstition to the effect that the banana is the forbidden fruit of the Bible, and, though lapses of time have put a haze of doubt about this belief, the native is still at pains to break the fruit when eating it, considering it a sacrilege to slice it and thus expose the cross-shaped core.

Fig.—Fresh figs are considered a great delicacy, and a favourite manner of serving them is with cream, a luxury obtainable at no moderate price. The fruit reaches perfection during August and September, and is then gathered for preserving.

Apple and Quince.—Apples and quinces are abundant, but are rather dry and tasteless.

Loquot.—The loquot resembles a small peach, but tastes more like a very ripe persimmon.

Custard-Apple.—Most delicate and toothsome of the many various fruits is the custard-apple.

HYDRANGEA HEDGE AT SANTA ANNA.

CHAPTER XIX

FLOWERING PLANTS

Madeira is verily a land of flowers.[1] Mr. T. Edward Bowdich, the famous conductor of the mission to Ashantee in the early part of the present century, visited Madeira while on his third voyage to Africa in the autumn of 1823, and was greatly impressed by the luxuriance of the island's flora. He said, "If Homer's beautiful description of the Phæacian Isle, where fruit succeeded fruit and flower followed flower in rich and endless variety, be applicable to any modern one, it is to Madeira."

At all seasons flowers bud and bloom and the air is full of perfume. Many of the plants which in our northern climates must be grown in greenhouses are indigenous to Madeiran soil and flourish to a degree of luxuriance calculated to open wide the eyes of the American or English gar-

[1] Chapter V., Private Gardens; Chapter VII., Madeiran Horticulture.

dener who tends the same varieties in their dwarfed and delicate potted[1] state.

Geranium.—Of these the *geranio* (geranium) should be mentioned first, for it riots in untrained profusion in Madeira, growing anywhere and everywhere, as the daisy grows in America. The blossom is as large as the largest chrysanthemum, and the plants attain heights of from ten to fifteen feet. When growing by the side of a wall or of a house the geranium becomes a vine, and quickly spreads its twining branches upward in all directions. Tree-trunks are often enveloped in flowering geranium-vines.

Alexandrian Laurel.—A splendid climber is *Allegre campo* (Alexandrian laurel), and *Sibthorpia prostrata* is a very graceful and luxuriant trailer.

Madeiran Pride.—The *Echium fastuosum* (Madeiran pride) bears large claret-coloured flowers that are very gorgeous.

Himalayan Rose.—Hedges of Himalayan rose are quite popular in the rural districts.

Saxifraga Maderensis.—A pretty white flower grows on the *Saxifraga Maderensis.*

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[1] Chapter XXIII., Scarlet Geraniums.

A FLOWER GARDEN.

Yellow Violet.—A yellow violet peculiar to Madeira is found in the vicinity of Pico Ruivo,[1] the loftiest mountain summit.

But a full description of the many plants in Madeira which are worthy of mention would fill a volume in itself, or at least would occupy more space than can be spared for it in a work like this of a general character. The following alphabetically arranged list will serve to show the remarkable profusion of flowers that flourish in Madeira.

List of Luxuriant Flowering Plants.—While it has been compiled with great care, it names only the more abundant and luxuriant varieties, as other flowering plants too numerous to mention thrive on the island, but are less plentiful and interesting.

THE LUXURIANT FLOWERING PLANTS.

Acanthus.	Calycanthus.
Allamanda.	Canterbury bells.
Amaryllis, varieties.	Cantua dependens.
Azalea.	Carnation.
Begonia.	Celandine.
Bougainvillea.	Cereus.
Calceolaria.	Clematis.

[1] Chapter VII., Pico Ruivo.

THE LUXURIANT FLOWERING PLANTS—*Continued.*

Clerodendron.
Coleus.
Coronilla.
Daffodil.
Dahlia.
Delphinium.
Dolichos lignosus.
Eschscholtzia.
Eucharis Amazonica.
Franciscea.
Fuchsia.
Funkia.
Gardenia.
Gazania.
Geraniums.
Gesnera.
Gladiolus.
Gloxinias.
Guernsey lily.
Heart's-ease.
Heliotrope.
Hoya.
Iris.
Ixia.
Jasmine.
Jonquils.
Justicia.
Laburnum.
Lapageria.
Lavender.
Lilac.
Lilies.
Lobelia.
Lychnis.
Malvaviscus.
Mandevilla suaveolens.
Marica.
Marigold.
Maurandya.
Mexican vine.
Michaelmas daisy.
Mignonette.
Narcissus.
Neapolitan violet.
Nemophila.
Pentstemon.
Petunia.
Pink.
Pleroma.
Primrose.
Ranunculus.
Rhynchospermum jasminoides.
Rosemary.

THE LUXURIANT FLOWERING PLANTS—*Concluded.*

Roupellia.
Rue.
Salvia.
Solanum.
Sollya.
Sparaxis.
Squill.
Stapelia.
Stephanotis.
Sweetbrier.
Sweet-william.
Thunbergia.
Tradescantia.
Tritoma.

CHAPTER XX

TREES

Camping in the Mountains.—When the visitor wearies of the town and its sights there are still the rural districts and villages to be explored,[1] and the wild, rugged, and forest-covered interior of the island to be penetrated. There is nothing more delightful and more exhilarating for those with a love for natural history than to spend some time in the highlands during the summer months. Rambling about from cliff to dell, where the mountain breezes play, in search of new trees, ferns, stones, insects, birds, and shells, is a paradise for the naturalist. It is advisable to have the rêde at hand on such a mountain excursion.[2] A number of enthusiastic naturalists have been accustomed to remain in the mountainous regions as nomads during the

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[1] Chapter VIII., Journeys to Distant Points of Interest.

[2] See Chapter VII., How to dress for Mountaineering; Where the Rêde is Desirable.

TREES ALONG A COUNTRY ROAD.

TREES IN THE NEW PUBLIC GARDENS.

summer. To such, and to all those who intend to stay for any length of time amidst the lofty hills of the interior, a tent is highly recommended.

Trees.—As already mentioned, there are forests in the interior, but few trees in the vicinity of the coast,[1] except those under special cultivation in gardens and along public boulevards. As the list of trees found thriving in Madeira includes almost every variety common to the world's various climes and soils, it would be useless to append such a list herewith. For where the palm and the fir, the banana and the blackberry, the pine-apple and the apple grow in luxuriance side by side it would be difficult to find a plant of any kind languishing on account of unsuitable soil or climate. Some of the fruit-bearing trees are named in Chapter XVIII., in connection with the description of their fruits.

Papaw-Juice makes Meat Tender.—Special mention might, however, here be made of the papaw-tree, which bears a green pear-shaped fruit, the juice of which possesses the property of making tough meat tender. The leaves produce the same

[1] Chapter IV., The Seven-Years' Fire.

result if they are wrapped about such meat for a short time.

Many of the palms are particularly fine: the more abundant varieties are date-palm; *Latania bourbonica* and *Chamærops humilis*, fan-palms introduced from Portugal; and cabbage-palm. *Cycas revoluta*, often though erroneously called sago-palm,—it is not a true palm,—also grows well.

The leading nuciferous trees are the walnut, the oak, and the Spanish chestnut.

Chestnuts.—The natives eat largely of chestnuts, of which there are generally abundant crops. The favourite manner of preparing them is by roasting. Roasted chestnuts occupy a prominent place in all market displays. The leaves of the chestnut-tree are fed to the cattle.

The coniferous specimens include the gray Aleppo pine, the Brazilian pine, the Norfolk Island pine, and several trees introduced from the Canaries and New Zealand.

Fuel.—Pine-forest growing is an industry in the interior. Firewood is worth from nine thousand to ten thousand five hundred reis per sledge-load in Funchal, where it can also be bought in smaller

quantities. *Queima*, heath cut and dried on the serra, is excellent material for kindling fires. It can be used in lesser quantity and is less expensive than larger wood, selling at the rate of from sixteen to twenty pieces per one hundred reis.

Of other trees the more noticeable are the camphor-tree, silk-cotton tree, coral-tree, and India-rubber tree.

CHAPTER XXI

FERNS

Ferns like Trees.—There are several varieties of fern that bear a close resemblance to trees, on account of the remarkable heights which their fronds attain. During the writer's residence in Madeira he made a collection of many of the indigenous ferns, but before undertaking to compile a list of the varieties he carefully studied the existing lists in the botanical library of the British Museum, and furthermore consulted, during the preparation of his list, valuable published works, from which he received considerable assistance, and which he takes pleasure in mentioning. They are "The Synopsis Filicum," a comprehensive and thorough treatise, by the Messrs. Baker and Hooker; the "List of Indigenous Ferns," compiled by the world-famous botanist, the late Mr. J. Y. Johnson; and the excellent book on Madeira written in German by Dr. Mittermaier, of Heidelberg.

A NATURAL FERNERY.

Ferns

An Alphabetical List of Ferns Growing in Madeira.

Scientific Name.	Description.
Acrosticheæ.	
Acrostichum squamosum, Sw.	Found infrequently, and only in the swampy parts of the forests on the north side.
Aspidieæ.	
Aspidium (*Polystichum*) *angulare*, Sw.	To be found in all localities; grows equally well on the mountain-sides and in the lowlands.
Aspidium (*Polystichum*) *angulare*, var. *falcinelliforme.*	Discovered by Miss Ellen M. Taylor, author of an excellent book on Madeira, at Camacha in 1865 and at Boa Ventura in 1881. Also discovered by the Rev. John Buchanan at S. Antonia da Serra. Named by Mr. Baker at the Kew Gardens in 1875.
Aspidium (*Polystichum*) *falcinellum*, Sw.	Peculiar to the soil; abundant about Rabaçal, Camacha, Seixal, and S. Vicente.
Aspidium (*Polystichum*) *frondosum*, Lowe.	Peculiar to the soil. Grows in the shady ravines near Lamaçeiros, but is more common on the Montado dos Pecegueiros.
Nephrodium (*Lastrea*) *æmula*, Aiton. *N. Fœnesecii*, Lowe.	A fragrant variety, abounding in the wooded mountainous districts.
Nephrodium (*Lastrea*) *elongata*, Sw.	Abounds in uplands that are damp and shady.
Nephrodium (*Lastrea*) *Filix-mas*, Rich.	Abounds in ravines above eighteen hundred feet.

AN ALPHABETICAL LIST OF FERNS GROWING IN MADEIRA—*Continued.*

SCIENTIFIC NAME.	DESCRIPTION.
Nephrodium molle, Desv.	Common below eighteen hundred feet.
Nephrodium (*Lastrea*) *montanum*, Baker. *L. Oreopteris*, Presl.	Rare: found only about the Lamaçeiros levada, Pico da Suna, and Pico Canario.
Nephrodium (*Lastrea*) *spinulosum*, Desv.	Grows abundantly in the forests, and luxuriantly at Lamaçeiros, S. Antonio da Serra, and Ribeiro Frio.
Polystichum maderense, Johnson.	Grows at Ribeira da Janella.
ASPLENIEÆ.	
Asplenium Adiantum-nigrum, L.	Grows abundantly in the forest lands, but more luxuriantly when cultivated.
Asplenium (*Hemidictyon*) *Ceterach*, L.	Flourishes at Camacha and in the S. Luzia ravine.
Asplenium (*Athyrium*) *Filix-fœmina*, Bernh.	Abundant along the banks of the streams.
Asplenium furcatum, Thunb. *A. præmorsum*, Sw.	Found on the sides of walls and rocks in the neighbourhood of Camacha, and very occasionally in other localities not exceeding two hundred and fifty feet above sea-level.
Asplenium Hemionitis, L.	Luxuriant on shaded rocks at the north side.
Asplenium lanceolatum, Huds.	Found frequently in the walls and on the rocks above Funchal.

AN ALPHABETICAL LIST OF FERNS GROWING IN MADEIRA—*Continued.*

SCIENTIFIC NAME.	DESCRIPTION.
Asplenium marinum, Huds. (Sea spleenwort.)	Profuse on the rocks and in the caves of the north coast.
Asplenium monanthemum, L.	Common in the forests of the north side and along the banks of mountain streams.
Asplenium trichomanes, L.	Common along the walls of the uplands, but never growing in localities above three thousand six hundred feet.
Asplenium (*Athyrium*) *umbrosum*, J. Sm.	Common in the dark ravines and along the banks of running water, between the heights of two thousand and three thousand five hundred feet, its fronds often attaining a height of six feet.
BLECHNEÆ.	
Woodwardia radicans, Sw.	One of the two most beautiful ferns of the island; its fronds often attain the height of eight feet. It grows luxuriantly in the neighbourhood of Santa Anna and is common near water-falls.
DAVALLIEÆ.	
Cystopteris fragilis, Bernh.	Described as the brittle bladder-fern, this variety is common to marshes and to all damp localities below two thousand nine hundred feet.

AN ALPHABETICAL LIST OF FERNS GROWING IN MADEIRA—*Continued.*

SCIENTIFIC NAME.	DESCRIPTION.
Davallia canariensis, Smith.	Anglicised as hare's-foot fern, is to be found on the trees, walls, and rocks in various parts of the island. In the dry season the fronds die; but new ones take their places after the fall rains.
DICKSONIEÆ.	
Dicksonia Culcita, L'Herit.	The other of the two most luxuriant Madeiran ferns, now rare in most parts of the island, and growing in abundance only in the high but damp forest tracts of the Montado dos Peçegeiros and in the uncultivated mountain regions of Seixal. The verdant, feathery leaves often rise to a height of ten feet. Pillows stuffed with the silky fibres from the base of the stems are highly prized by Portuguese grandees.
Gymnogramma leptophylla, Desv.	A small, feathery fern, in foliage during only a few weeks annually, and then appearing in shady hollows and on sandstone walls in the neighbourhoods of Santo Amaro and S. Antonio. Season during March and April.
Gymnogramma Lotta, Loweii.	Grows along the banks of mountain streams at heights above eighteen hundred feet.

AN ALPHABETICAL LIST OF FERNS GROWING IN MADEIRA—*Continued.*

SCIENTIFIC NAME.	DESCRIPTION.
GRAMMITIDEÆ.	
Nothochlæna lanuginosa, Desv.	On old walls in and about the city of Funchal, and luxuriant in the old walls at Santa Cruz. During the dry season the fronds wither, but the plants are in season during the months of February and March, and then their leaves are always green and upright.
Nothochlæna Marantæ, R. Br.	Uncommon, but to be found occasionally at Campanario and in the vicinity of Magdalena.
HYMENOPHYLLEÆ.	
Hymenophyllum Tunbridgense, Sm.	Known familiarly as the Tunbridge filmy fern. Grows in shady marsh lands between the elevations of three thousand and four thousand feet, being notably luxuriant in the neighbourhoods of Boa Ventura and S. Vicente.
LYCOPODIACEÆ.	
Lycopodium complanatum, L.	Rarely found, and then only in the vicinity of S. Vicente and of Encumeada.
Selaginella denticulata, Link.	Abundant in damp places of the higher regions, and especially in the neighbourhoods of S. Antonio da Serra and Camacha.

AN ALPHABETICAL LIST OF FERNS GROWING IN MADEIRA—*Continued.*

SCIENTIFIC NAME.	DESCRIPTION.
Selaginella Kraussiana, A. Br.	Found along the banks of upland streams and on damp boulders in the vicinity of the Rib. S. Luzia.
Lycopodium suberectum, Lowe.	Seen frequently along the banks of Ribeiro Frio, in the neighbourhood of the Lamaçeiros water-course.
OPHIOGLOSSACEÆ.	
Ophioglossum lusitanicum, L.	Rare, and growing only at S. Roque and Alegria. (This variety is Anglicised "adder's tongue.")
POLYPODIEÆ.	
Polypodium (*Phegopteris*) *drepanum*, Hook.	Rare, and peculiar to the island. Found luxuriant only in the vicinity of Seixal, S. Vicente, and Ribeira do Inferno.
Polypodium vulgare, L.	Common to every locality.
PTERIDEÆ.	
Adiantum Capillus Veneris, L.	Known as (and similar to American) "maiden-hair," and abundant near water-falls and in shady ravines, where it frequently attains a height of two feet.
Adiantum reniforme, L'Herit.	Known to the natives as *Feto redondo*, and growing on rocks and in shady ravines of the highlands.

AN ALPHABETICAL LIST OF FERNS GROWING IN MADEIRA—*Concluded.*

SCIENTIFIC NAME.	DESCRIPTION.
Cheilanthes fragrans, Webb and Berth.	On old walls in and about Funchal, Santa Cruz, and Campanario. The fronds wither during the dry months.
Lomaria Spicant, Desv.	Known to the English as "the hard fern," and to the Madeirans as "*feto de pente*;" it flourishes in the highlands.
Pteris aquilina, Linn.	Common (*Feteira*, native name; common brake, familiar name).
Pteris arguta, Ajt.	Abundant in shady ravines.
SCOLOPENDRIEÆ.	
Scolopendrium vulgare, Sw.	Rare (*lingua cervirra*, native name; hart's-tongue, familiar name). Found near dripping water.

CHAPTER XXII

MOSSES

Mosses peculiar to Madeira.—There are many beautiful mosses that cover the rough boulders and carpet the woodland glades at various altitudes, and the writer has gathered specimens such as he has never found or heard of as existing in any other part of the world. Among the more important works consulted by him in the course of his compilation of the names of Madeiran mosses are a reprint from the edition of Godman's book, "The Natural History of the Azores" (published by Van Voorst, 1870), and "The List of Plants found in Madeira" in Mrs. Bowdich's "Botanical Index" to her husband's valuable treatise, "Excursions in Madeira and Porto Santo" (published by George B. Whittaker, London, 1825). From these works the writer has derived considerable of his information concerning the identity of the discoverers of various varieties. The names of these discov-

erers will be found in abbreviation appended to the names of their respective discoveries, which are listed as follows :—

List of Mosses.—THE MOSSES OF MADEIRA.

Amblystegium, Schimp.
Maderense.
Varium, Beauv.
riparium, Linn.
Anæctangium, Schw.
compactum, Schleich.
angustifolium.
Antitrichia, Brid.
curtipendula, Linn.
Astrodontium, Schw.
canariense, Schw.
Atrichum, Beauv.
undulatum, Linn.
Bartramia, Hedw.
rigida, De Notaris.
fontana, Linn.
Webbii.
stricta, Brid.
Bryum, Dill.
notarisii.
alpinum, Linn.
julaceum, Schrad.
atropurpureum, Web. et Mohr.
Bryum, Dill.
canariense, Brid.
pseudotriquetrum, Hedw.
capillare, Linn.
obovatum.
Campylopus, Brid.
introflexus, Hedw.
fragilis, Dicks.
azoricus.
Ceratodon, Brid.
purpureus, Linn.
Cryphœa, Mohr.
None.
Ctenidium, Schimp.
Berthelotianum.
Dicranum, Hedw.
Scottianum, Turn.
Diphiscium, Mohr.
foliosum, Linn.
Entosthodon, Schw.
templetoni, Schw.
Epipterygium, Lindb.
tozeri, Grev.

The Mosses of Madeira—*Continued.*

Fabronia, Raddi.
pusilla, Raddi.
Fissidens, Hedw.
serrulatus, Brid.
asphenioides, Swartz.
pallidicaulis.
viridulus, Sw.
Fontinalis, Dill.
antipyretica, Linn.
Funaria, Schreb.
hygrometrica, Hedw.
fontanesii, Schw.
Grimmia, Ehrh.
trichophylla, Grev.
acicularis, Linn.
canescens, Dill.
Glyphomitrium, Brid.
pulvinare.
polyphyllum, Dicks.
Hedwigia, Ehrh.
ciliata, Dicks.
Homalia, Brid.
subrecta.
Hookeria, Sm.
lucens, Linn.
læte-virens, Hook. et Tayl.
Hylocomium, Schimp.?
Hypnum, Dill.
confertum, Dicks.
surrectum.
tenellum, Dicks.
teesdalii or *teneriffæ*.
pumilum, Wils.
Swartzii, Turn.
prælongum, Dill.
longirostre, *var. Duriæi Mont.*
illecebra, Linn.
sericeum, Linn.
mandoni.
plumosum, Sw.
vivulare, Bruch et Schimp.
Lepidopilum, Brid.
fontanum.
Leptodon, Mohr.
None.
Lescuria, Schimp.
None.
Leucobryum, Hampe.
juniperoideum, Brid.
Leucodon, Schw.
sciuroides, Linn.

The Mosses of Madeira—*Continued.*

Mnium, Linn.
undulatum, Hedw.
affine, Bland.
rostratum, Schrad.
Myurium, Schimp.
hebridarum, Schimp.
Neckera, Hedw.
crispa, Linn.
intermedia, Brid.
Orthotrichum, Hedw.
tenellum, Bruch.
vittatum, or *Ulota calvescens*, Wils.
Palyteichum, Dill.
piliferum, Schrew.
jumperinum, Willd.
commune, Linn.
formosum, Hedw.
Physcomitrium, Brid.
None.
Plagiothecium, Bruch.
sylvaticum, Linn.
Pleurozium, Sullivant.
None.
Pogonatum, Beauv.
aloides, Hedw.
nanum, Schreb.
Pterogonium, Sw.
gracile, Hedw.
Pterygynandrum, Hedw.
None.
Rhabdoweisia, Schimp.
curvipes.
Rhamphidium.
purpuratum.
Sciaromium.
spinosum.
prolixum.
setigerum.
Sematophyllum.
auricomum.
Sphagnum, Dill.
compactum, Brid.
Stereodon, Brid.
cupressiforme, Linn.
canariense.
Thamnium, Schimp.
alopecurum, Linn.
Thuidium, Schimp.
tamariscinum, Hedw.
minutulum, Hedw.
Tortula, Hedw.
barbuloides, Brid.
brachydontia, Müll.

The Mosses of Madeira—*Concluded.*

Tortula, Hedw.
- *cirrifolia.*
- *fallax*, Hedw.
- *muralis*, Hedw.
- *acuminata*, Sw.
- *chloronotos*, Schultz.

Weissia, Hedw.
- *controversa*, Hedw.
- *reflexa*, Brid.
- *verticellata*, Schw.

Part VII

The Vine and the Wine

Longitude West of Greenwich
10'
17°
50'
40'
50'
32°40' N.Lat
Pa.do Tristão
R. do Tristão
Porto Moniz
S. Magdalena
Ribeira da Janella
Achadas da Cruz
R. da Janella
Fanal
R. dos Anjos
Seixal
Pa.do Pargo
Port Pargo
S.João
Fajãa da Ovelha
Rabaçal
Paúl do Mar
Prazeres
N.S.da Graça
Jardim do Mar
Ribeiro Fundo
Pa.Galera
Calhêta
Arco de Calhêta
Magdalena
Canhas
Lombada
Ponta do Sol
Pa.do Lugar de Baixo
Atabuas
R. Brava
Campanario
Lapa I.
Fajãa dos Padres
P.d'Agua
C.Girão
Camara de Lobos
Praya Formosa
Pa.da Cruz
Gaigalho I.
Funchal Bay
Loo Rock
Lazaretto
Cabo Garajão
Barren Hd.
P.d'Oliveira
P.d'Ambaxo
Ponta Novo
Gaula
Pedreira
Canico
S.Gonzalo
S.da Veyga
Camacha
Monte
FUNCHAL
Sta.Cruz
Sta.Katarina I.
Pa.Quimada
Agua de Pena
Machico
S.Antonio da Serra
Canical
Portella
Penha d'Aguia
Porto da Cruz
Corral do Mar
Pa.de S.Antonio
Pa.do Bode
Pa.do Rosto
Brancas I. (Archeol Rocks)
Pa.do Castello
P.das Pedras
Agostinho I.
Pa.de S.Lourenço
Light H.
T.de Labra
Pa.do Furado
I.de Cevada
Fora I.
Pa.de Cevada
Pa.de Furado
Pa.de Labra
Pa.de Agostinho
Pa.de S.Lourenço
Pa.de Fora

CHAPTER XXIII

THE VINE AND THE WINE

Introduction of the Vine.—Shortly after the settlement of Madeira the vine was brought from Crete, but it was not until the sixteenth century that the grape was cultivated to any great extent.

The largest shipments of wine from Madeira were made between the years 1788 and 1828. The following table (page 194) will serve to illustrate the progress and history of the wine product in Madeira.

The oldest and largest wine-shipping house in Madeira is that of Messrs. Cossart, Gordon & Co., established in the year 1745 by Mr. Francis Newton.

History of Good Wine as shown in the Life Work of Francis Newton.—This young gentleman started in business for himself under the most trying and adverse circumstances, for he was unfamiliar with the language and with the laws and customs, and he had the ill will of the community

Quantity of Madeiran Wines consumed by the World, Year by Year, since 1774.—Total Shipments from Madeira.

Year.	Shipments in Pipes.	Year.	Shipments in Pipes.	Year.	Shipments in Pipes.	Year.	Shipments in Pipes.
1774	7,073	1822	10,558	Financial year from July, 1850, to June,		1872	1,654
1775 to 1787	Not obtainable	1823	8,083			1873	2,154
		1824	10,980			1874	2,060
		1825	14,431			1875	2,322
1788	10,819	1826	9,398	1851	7,301	1876	2,568
1789	11,762	1827	8,424	1852	6,690	1877	2,476
1790	13,713	1828	9,623	1853	4,204	1878	2,125
1791 to 1797	Not obtainable	1829	8,104	1854	2,227	1879	2,923
		1830	5,499	1855	1,776	1880	3,691
		1831	5,533	1856	1,891	1881	3,447
1798	12,429	1832	7,163	1857	1,798	1882	4,260
1799	14,666	1833	8,683	1858	1,281	1883	3,854
1800	16,981	1834	8,875	1859	1,328	1884	4,399
1801	16,732	1835	7,730	1860	1,013	1885	4,905
1802	14,933	1836	7,913	1861	1,289	1886	5,227
1803	12,967	1837	8,123	1862	981	1887	4,247
1804	11,041	1838	9,832	1863	723	1888	5,872
1805	13,223	1839	9,044	1864	840	1889	5,195
1806	14,015	1840	7,976	1865	536	1890	5,592
1807	16,701	1841	7,157	1866	823	1891	6,346
1808	13,994	1842	6,270	1867	849	1892	5,077
1809	15,363	1843	7,386	1868	874	1893	5,168
1810	11,273	1844	7,054			1894	5,289
1811	9,575	1845	7,179	For the regular year of		1895	5,997
1812 to 1819	Not obtainable	1846	8,190			1896	5,917
		1847	5,577				
		1848	5,829	1869	987		
1820	13,554	1849	7,379	1870	1,110		
1821	9,916			1871	1,511		

N. B.—It will be understood that the years from 1851 to 1868 are all financial years of from July of the one year to June of the other. In 1869 the customs went back to the old way of keeping their books, from January to December of each year.

Statistics before the year 1774 are not obtainable.

FAC-SIMILE OF AN OLD BILL OF LADING.

HEAVY SHIPMENT WHICH, WITH THE FOLLOWING ONE OVERLEAF OF 200 PIPES, COMPLETES AN ORDER FOR 500 PIPES FOR AMERICA.)

IS A	50.. 12.. 16
B	50.. 10.. 20
C	90.. 10.. 20
D	30.. 0.. 0
E	38.. 10.. 28
	258.. 42.. 84

Branded

NGI

SHipped, by the Grace of God, in good Order, and well-conditioned, by *Newton, Gordon*, and Company, in and upon the good Ship, called the Russel whereof is Master, under God, for this present Voyage, Philip Tourneaua and now riding at Anchor in the Road of *Funchal*, and by God's Grace bound for America

to say, Two hundered and fifty Eight pipes, Forty two hogsheads and Eighty four Quarter Casks, equal to three hundred pipes of Madeira Wine for account and risk of John Shoolbred Esq in London and likewise thirty five boxes of Lemons for acct. of said Gentn.

being marked and numbered as in the Margin, and are to be delivered in the like good Order and well-conditioned, at the ~~[illegible]~~ Port of Cav. or Chr. Town (the Danger of the Seas only excepted) unto Mr. Wm. Smith & in his absence to Mr. Shoolbred & Moodie or to their Assigns, he or they paying Freight for the said Goods, nothing, they being owners property with Primage and Average accustomed. In Witness whereof the Master or Purser of the said Ship hath affirmed to 5 Bills of Lading, all of this Tenor and Date; the one of which 5 Bills being accomplished, the other 4 to stand void. And so God send the good Ship to her desired Port in Safety. AMEN. Dated in *Madeira* this 29 May 1780

Philip Tourneaua

VINE-GROWING IN THE INTERIOR.

for a long time because he was a Protestant, and therefore, in the eyes of the Madeiran Romanist, a heretic. But, with indomitable energy and perseverance, Mr. Newton fought every obstacle until he overcame it. His first mission was to improve the product, which, at the time of his arrival, was very large, but of inferior quality, being merely the fermented grape juice with little or no treatment. By his efforts the wine was improved, for he built warehouses, put in elaborate appliances for the manufacture of a higher grade of wine, and employed skilled wine-makers to instruct the natives in the proper handling of the product of the vine. As time went on the following partners were taken into the firm: Messrs. Spence, Gordon, Murdoch, Johnston, Scott, and Cossart.

When the Wine first became Famous.—The improvement in the wine began to attract general attention, and it was not long before the price of the best product merited an advance of from twenty pounds to forty-five pounds per pipe. London became a heavy consumer, and continental cities bought largely.

When the Demand exceeded the Supply.—The following extract from a letter sent by Newton,

Gordon, Murdoch & Co., to the partner, Mr. Newton, who was in London in behalf of his business during the winter of 1801, may be of interest as serving to show the extraordinary demand that there was for the wines of Madeira at the beginning of the nineteenth century.

Extract from a Letter from Newton, Gordon, Murdoch & Co., Madeira, to Francis Newton, London, 20 January, 1810.

"There are not one hundred pipes of *old wine* in the hands of the natives for sale. The exports of the year 1800 exceeded all previous exports, being upwards of seventeen thousand pipes, and, should the demand for our wine increase as much as it has done for some years, the island will not be able to supply the requisite quantity."

India also became a heavy consumer of Madeiran vintages. In the year 1800 Newton, Gordon, Murdoch & Co. received the following orders from Bombay alone, ordered by the following firms:—

Dec. 6, 1799	. . . .	500 pipes, Law, Bruce & Co.
Mar. 19, 1800	. . . .	300 pipes, David Scott & Co.
Aug. 2, 1800	. . . .	250 pipes, Forbes, Smith & Co.
Total	. . . . .	1,050 pipes.

FAC-SIMILE OF AN OLD BILL OF LADING.

(HEAVY SHIPMENT, COMPLETING ORDER FOR 500 PIPES FOR AMERICA.)

A WS } 80.25.10
D.o B 40..25..10
D.o C 15.. 0.. 0
D.o D 30.. 0.. 0
D.o M 0.. 0..20
165..50..40

all iron bound
and
Branded
NGH
1 @ 12 boxes Lemons

SHipped, by the Grace of God, in good Order, and well-conditioned, by *Newton, Gordon*, and Company, in and upon the good Ship, called the Two Sisters whereof is Master, under God, for this present Voyage, Wm Smith — and now riding at Anchor in the Road of *Funchal*, and by God's Grace bound for Savannah or Charlestown

to say, One hundred and sixty five pipes, fifty hogsheads and forty Quarterbacks equal to Two hundred pipes of Madeira Wine — and also twelve boxes Lemons and some onions, all for acct & risk of John Shoolbred Esq

being marked and numbered as in the Margin, and are to be delivered in the like good Order and well-conditioned, at the aforesaid Port of Sav.a or Chtstown (the Danger of the Seas only excepted) unto Wm Smith & in his absence to Messrs Shoolbred & Moodie or to —— Assigns, he or they paying Freight for the said Goods x x x x x x with Primage and Average accustomed. In Witness whereof the Master or Purser of the said Ship hath affirmed to 5 Bills of Lading, all of this Tenor and Date; the one of which 5 Bills being accomplished, the other 4 to stand void. And so God send the good Ship to her desired Port in Safety. AMEN. Dated in *Madeira* this 20 June 1780

William Smith

FAC-SIMILE OF AN OLD BILL OF LADING.

(WINE SUPPLIED TO THE NAVY.)

N
1 120 } 120 London
P } made pipes

bound with 12 iron hoops each both heads painted dark chocolate colour & branded upon ~~both~~ the heads bungs & spiggots

NGI

SHipped by the Grace of God, in good Order, and well-conditioned, by *Newton*, *Gordon*, ~~*Johnston*~~ and ~~*Company*~~ Burdoch, in and upon the good Ship, called the

Providence

whereof is Master, under God, for this present Voyage, J. F. Throckmorton and now riding at Anchor in the Road of *Funchal*, and by God's Grace bound for Barbadoes

to say, One hundred & twenty pipes of Madeira wine by order of the Commissioners for victualing His Majesty's Navy for the use of His Majesty's forces in the West Indies

being marked and numbered as in the Margin, and are to be delivered in the like good Order and well-conditioned, at the aforesaid Port of Barbadoes (the Danger of the Seas only excepted) unto His Majesty's Commissary General at Barbadoes & in his absence to His Exc.ᵗ the Gov.ʳ of said Island or to his Assigns, he or they paying Freight for the said Goods according to the Charter party with Primage and Average accustomed. In Witness whereof the Master or Purser of the said Ship hath affirmed to 6 Bills of Lading, all of this Tenor and Date; the one of which 6 Bills being accomplished, the other to stand void. And so God send the good Ship to her desired Port in Safety. AMEN. Dated in *Madeira*, 21 Dec.ʳ 1793

Wm. F. Throckmorton

Another large order which stands on their books reads as follows :—

From William Simon's Letter, dated East India House, 28 July, 1809.

"Three hundred and thirty pipes of best India Market Madeira wine. One hundred and twenty pipes best London Market Madeira. For account of the East India Company and to be shipt on board their ships of the season 1809/10."

After one hundred and fifty years, Cossart, Gordon & Co. (the present firm name of the original Newton, Gordon, Murdoch & Co.) are still, as already stated, the leading wine-merchants.

The Responsible Wine-Merchants of Madeira.—But other responsible houses that do a considerable business in wine-making and handling are the following, alphabetically listed :—

Wine Merchants.

Araujo & Henriques.	Miles, Henry P.
Blandy Bros. & Co.	Payne & Son, John.
Correa, J. A. (Golden Gate).	Power, Drury & Co.
Cunha, A. P.	Rodrigues & Co., Francisco.
Krohn Bros. & Co.	Vinva Abudarham & Sons.
Leacock & Co.	Welsh Bros.

Vines and Stores of Cossart, Gordon & Co.—Cossart, Gordon & Co. own vineyards here and

there throughout the island. Their head-quarters are situated just outside the town, and comprise six distinct sets of buildings,—Estufa, Serrado, Martins, Thiago, Aula, and Pateo armazems (stores).

The Estufa Stores, where the Wines are subjected to Heat.—The estufa stores comprise a block of buildings two stories high, divided into four compartments. In the first of these common wines are subjected to a temperature of 140° F.—derived from flues heated with anthracite coal—for about twelve weeks; in the second compartment wines of an intermediate quality are heated to 130° F. for a period of some eighteen weeks; the third is for superior wines which are kept heated between 110° and 120° F. for the term of one-half a year. The "calor," or fourth compartment, is heated by the warmth derived from the surrounding compartments. It has a temperature varying from 90° to 100° F. Here are kept the high-grade wines. The reason given for thus heating the wine is that the germs of fermentation which remain in it may be destroyed, and, moreover, that the wine will have nothing to delay its maturing, so that it may be shipped in its

second and third year without further addition of spirits.

The use of this estufa in Madeira dates from the commencement of the present century. The great bulk of the wine undergoes a treatment such as here described before it is shipped.

During the preparation of the following account of the wine and its manufacture the writer derived much assistance from Cossart, Gordon & Co., in Funchal, and also by recourse to Henry Vizetelly's famous book "Madeira and its Wines."

Wine-making Grapes described.—The following descriptions of the principal kinds of wine-making grapes in the island of Madeira are quoted from the above-named work.

Verdelho.—"A small oval grape, hardly as large as a coffee-berry, when ripe of a rich golden hue, full of flavour, and saccharine. The leaf of the Verdelho has seven lobes, the sinews of which are not strongly marked; it is of a dark green, but perfectly bald, and the two lowest lobes are very indistinct."

Verdelho, at the present time, is the principal wine-making grape in the island, at least two-thirds being of this species.

Tinta.—"A small black Burgundy grape of fine flavour. The leaf of the Tinta has seven lobes, decreasing in size, and the sinews are very deep and rounded; the middle lobe is subdivided into two others, both indistinct."

The Tinta grapes in smaller vineyards are usually pressed together with the Verdelho and other white grapes. In the larger vineyards where there may be a sufficient quantity of it to make it worth while to be plucked separately, such is done, and a red wine is made which is called Tinta, from the grape. The husks of the grapes are allowed to remain in the wine during the process of fermentation, and impart to the wine its deep-red colour and peculiar astringency. This red wine is much esteemed amongst the natives, and used as a *vin ordinaire*, being drunk in its first or second year; after that time it begins to lose its colour and character, and in course of time becomes a tawny-coloured Madeira.

Malvazia, or Malmsey.—"Malvazia Candida is a medium-sized grape, of a rich gold colour when ripe, and hangs in long, thin, pendulous bunches. The leaf has four very deep and rounded sinews with two others less distinct; each dentation has a small yellow tip; the back of the leaf is as smooth as the upper surface, and is of a deep yellow-green. Its epithet, 'Candida,' is a corruption of 'Candia,' whence this Malmsey vine was imported in the fifteenth century by the Infante Dom Henrique."

Malmsey Madeira is a rich white wine, of peculiar bouquet, imparted to the wine by the husks of the grape being allowed to remain in the wine during fermentation. It is considered one of the most valuable of the wines of Madeira,

WAYSIDE GRAPE-VINES.

and even when young commands a high price. The best grapes are grown on rocky soil, and should be allowed to remain on the vines until they become almost raisins. The produce of Malmsey on the island is but small.

Bual.—"A round, straw-coloured grape of medium size, leaf with four of the sinews very deep and sharp, the two lower indistinct, the indentations sharp and irregular, the leaf hairy on both sides." The wine made from the Bual grape is of delicate and mellow character. The Bual is not a common grape, and the wine made from it always commands a high price.

Sercial.—"A round, white grape, the same as the Reisling of the Rhine; the leaf has four rounded sinews; the nerves are very strong and by their projections give a cockled appearance to the leaf; it is a yellow-green and cottony on both sides." This vine will not succeed in all places or soils. It is mostly grown near the sea-coast at Paül do Mar and Ponta do Pargo, two places on the west coast of the island. The wine is very unpleasant to the palate when new, and requires some eight years to become matured. When old it is considered one of the finest of the wines of Madeira.

Malmsey, Sercial, and Bual may be considered as specialties of Madeira wines, as their production is but small and the wines are sought for only by connoisseurs.

Amongst other wine-producing grapes may be mentioned the "Negro Molle," a large, juicy, black grape, the Maroto, the Tarantrez, the Carão de Moça, Malvazia Roxa, Malvazião, the Listrão, the Bastardo, and some others. All

these, however, are usually pressed together with the Verdelho species in the making of Madeira wine.

Verdelho, the King of Wine-Producing Grapes.—All these different kinds of grapes in Madeira, with the exception of the specialties before mentioned, such as Bual, Tinta, Malmsey, and Sercial, are gradually giving way before the Verdelho, which is without doubt the king of wine-producing grapes.

Cossart, Gordon & Co.'s Book.—Cossart, Gordon & Co. publish a book descriptive of their establishment, and by way of describing it they quote a chapter from Henry Vizetelly's work.

Wine-making described by Henry Vizetelly.—While the writer is familiar with the plant of Cossart, Gordon & Co., he appreciates his utter incompetency to prepare an account which would be equal to that of Mr. Vizetelly. He, therefore, requotes the following from the chapter by Mr. Vizetelly as republished by Cossart, Gordon & Co.

The Serrado Stores.—The ground on which the Serrado stores stand comprises between four and five acres, with armazems of a single story occupying three of its sides, the cooperage being on the fourth. Here we observed casks being made in precisely the same fashion as is followed at Jerez, with the exception, perhaps, that the adze which the

men handle so dexterously is a trifle heavier and clumsier than the one used by their Jerez brethren.

Coopers.—The Funchal coopers work by the piece, and each pipe, which is certainly a well-made article, costs something like a couple of pounds. Round about the cooperage were piles of American oak staves, already trimmed or in the rough, while in the centre of the plot of ground were sheds in which the casks are measured, branded, scalded, and steamed, together with a couple of large tanks.

The vacant space between the sheds and the stores is occupied with rows of casks of various sizes, fresh from the cooperage, and undergoing a seasoning with water. When this is completed the casks are transferred to the armazem de Avinhar, there to be filled with common wine, which remains in them for two or three months. In these stores there are always in use for this purpose from two hundred to three hundred pipes of wine, which after frequent employment is no longer suitable, and is distilled into spirit. In the rear of the cooperage is a dried-up watercourse, a steep ravine some forty feet deep, which intersects the town of Funchal, and is mostly bordered by an avenue of shady plane-trees.

The Season for a Freshet.—During winter the water rushes down here from the mountains,[1] bringing with it huge boulders fully a ton in weight, and sweeping away whatever it encounters in its progress.

The Flood of 1803.—In the year 1803 the rushing torrent overflowed the steep banks of the ravine, carrying

[1] Chapter XVII., A Freshet.

away a store of Cossart, Gordon & Co.'s, which had been erected at the verge, together with several hundred pipes of wine, all of which were lost. The same flood swept away the British consulate (some distance lower down) and a church, not to speak of other damage.[1]

Shade for the Labourers.—All the unoccupied ground at these Serrado stores is planted with vines trained on corridors, interspersed here and there with a mango, fig, or custard-apple tree. Trellised vines, moreover, cover in all the walks in front of the various stores, enabling the men employed in them to be always under shade. The first store which we visited—a long narrow building some three hundred feet in length, with square grated openings along its front to allow of the free admission of air—is capable of holding six hundred pipes, in triple rows of two tiers each. It is used for receiving "vinho em mosto," or newly-made wine.

Scarlet Geraniums.—Scarlet geraniums[2] about a man's height are trained all over its front, and under the broad canopy of trellised vines—stretching from the roof of the store to that of the opposite shed—empty casks waiting to be "wined" are stowed away.

When the Produce of a Vineyard is purchased.—It is a common practice with the Madeira wine-shippers to purchase the produce of a vineyard before the grapes are pressed, in which case they either send some one especially, or appoint an agent residing in the locality, to see that the

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[1] Chapter XVII., Water-spout and Flood of 1803.

[2] Chapter XIX., Geranium.

THE VINTAGE AT BLANDY'S.

grapes are not gathered until they are ripe, that the work in the lagar[1] is properly done, and to arrange for the transport of the "mosto" to their Funchal wine-stores. There the "mosto" continues fermenting, with the bung-hole of each cask simply covered over with a leaf, generally until the middle of November. Either before or after the fermentation a small quantity of brandy is added, varying in quantity according to the quality of the "mosto," but seldom exceeding three per cent.

Racking and Lotting of Wine.—When the wine has thoroughly cleared itself, it is racked and lotted according to its quality, and afterwards forwarded to the "estufa" or heating magazine. [A specialty with regard to the wines of Madeira of which the writer has previously spoken.[2]]

Fining for the Pateo Stores.— In face of the store where the mosto is received is a store for brandy; and thence we proceed under the vine-covered corridors to other stores containing wines a year old, just arrived from the "estufa," —wines which, after having received a further modicum of spirit (varying from one to three gallons per pipe), were undergoing racking and fining preparatory to being passed on to the Pateo stores of the firm. There they will remain in butts holding four hundred gallons each, until fully matured for shipment. It should be noted that the mosto is fermented and the wine heated, racked, and passed from one store to

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[1] Wine-press.

[2] This chapter, The Estufa Stores, where the Wines are subjected to Heat.

another in what are termed canteiro or scantling pipes, each holding one hundred and thirty gallons, old wine measure. . . .

Where the Sun is used instead of the Estufa.—The artificially-heated estufas are used only by the larger shipping houses, who, however, heat wine in them for other shippers at a stated rate. Others accomplish the desired object by placing their wines in a kind of glass house, where they remain exposed to the full heat of the sun. In the daytime a temperature of from 120° to 130° F. is secured, which, however, becomes considerably lowered during the night, a circumstance which is regarded by many as detrimental to the development of the wine. In the country districts where estufas in no form exist, the holders of wine place the butts out in the open air in favourable positions to secure the full influence of the sun's rays.

Wine sent on a Sea Voyage to Mature.—The practice prevalent for many years past of sending Madeira on a voyage to the East or West Indies and home again is simply a variation of this method of maturing the wine by subjecting it to a high temperature, the heat which it encounters in these latitudes when shut up in the ship's hold being necessarily very great.

Precautions against Leakage under Heat.—In the estufas I am now describing—which, if packed full, are capable of heating one thousand six hundred pipes of wine at one time—the pipes are placed on end in stacks of four, with smaller casks on the top of them, a narrow gangway being left between the different stacks to admit of the passage of a man for the purpose of ascertaining that the casks do not

VINE-GROWING IN THE SUBURBS.

leak, as when subjected to great heat they are naturally inclined to do. A hole about the sixth of an inch in diameter has been previously bored in the bung of each pipe to allow the hot vapour to escape, otherwise the pipe would burst. As it is, the casks not unfrequently leak, as we perceive by numerous dull patches in various parts of the floor, rendering it necessary for the different compartments of the estufa to be inspected once during the daytime and once during the night, in order that any mishap of this kind may at once be rectified.

The Risky Proceeding of Tapping Wine in Air-Tight Compartments.—Each compartment is provided with double folding-doors, and after it is filled with wine the inner doors are coated over with lime, so as to close up any chance apertures. When it is necessary to enter the estufa, the outer doors only are opened, and a small trap in the inner door is pushed back to allow of the entrance of the man in charge, who passes between the various stacks of casks, tapping them one after the other to satisfy himself that no leakage is going on. On coming out of the estufa, after a stay of a full hour, he instantly wraps himself in a blanket, drinks a tumblerful of wine, and then shuts himself up in a closet, into which no cool air penetrates, provided for the purpose. Messrs. Cossart, Gordon & Co. usually place their wines in the estufa during the months of January and February, which admits of their removal to other stores before the next vintage commences.

Loss of Wine through Evaporation.—During the time they are in the estufa they diminish some ten or fifteen per cent. through the evaporation of their aqueous parts.

The Counting-House.—There still remain the Pateo stores to be noticed. These are situate in the rear of the counting-house of the firm, where all the books and papers relating to its transactions since its first establishment are carefully preserved.

The Pateo Stores, where Certain Specialties are kept.—Passing beneath an archway and across a narrow court planted with flowers, among which are geraniums trained level with the first-floor windows, we enter a small store, forming a kind of anteroom to the stores which follow. The first of these contains wines in butts holding four pipes each, in perfect condition for shipment, and only needing to be drawn off. Here we tasted a few specialties, including some Branco secco, made exclusively from the "verdelho" species of grape, which, having been perfectly fermented, possessed all the qualities of a remarkably fine dry Madeira; also some Sercial from Ponta do Pargo, of vintage 1865, exceedingly dry and clean-tasting, and slightly pale.

Where the Choice Wines are stored.—In the store above were wines of different qualities and ages, including some Palhetinho, or straw-coloured wine, delicate in flavour and with a fine bouquet; also several still paler wines, going under the Yankee cognomen of Rainwater Madeira, on account of their remarkable softness and delicacy. Here also were stored a vintage wine of 1863,—a Vinho do Sol, as it was called, from its having been matured by exposure to the sun, and never having passed through the estufa,—and finally a pale, delicate Malmsey, of the preceding year's vintage, with a highly developed bouquet, which promised to become a wine of a singularly choice character.

The Oldest Wines.—In the armazem de Vinhos Velhissimos—the ground-floor range of building on the southern side of the courtyard—were some large butts containing reserve wine of great age and numerous soleras, including a Cama de Lobos, the origin of which dates back to 1844—a deep-coloured, powerful wine of fine high flavour, replenished from time to time by wine from the bastardo variety of grape. A São Martinho solera, dating from the year 1842, was a soft choice wine with fine bouquet, while a Bual solera going back to the year 1832 proved remarkably delicate in flavour. There were also a couple of Malmsey soleras founded respectively in the years 1835 and 1850, the former of which had all the qualities of a choice liqueur; together with a Verdelho vintage wine of the year 1851 which had never been exposed to artificial heat: a sound mellow wine of the highest character.

Flavouring and Colouring Wines of Inferior Quality.—At the end of this solera store is a store containing Surdo, or sweet wine, and Vinho Concertado, or boiled mosto, thinned by the addition of some ordinary wine, and which, like the Jerez vino dulce and vino de color, are used for flavouring and colouring wines of inferior quality.

Light, Tasty, Moderate-Priced Wine.—Proceeding through the arched passage leading into the little garden, planted with bananas, rose-trees, and geraniums, and having vines trained in corridors over the walks, we came upon another store containing wines of later vintages from the north side of the island, which are light and agreeable to drink, and are shipped at what appears to be a very moderate price.

Part VII

The Fauna

CHAPTER XXIV

ANIMALS

Rabbits.—When discovered the island contained no quadrupeds,[1] but a male and female rabbit, which were brought thereto, littered on the voyage, and their offspring when liberated on the island bred so rapidly that it was but a couple of years ere many, many thousands of rabbits coursed through the fields and underbrush.

Wild Animals.—Deserta Grande,[2] the largest island of the Deserta group, abounds in game, such as wild goats, wild rabbits (both originally introduced), and birds. Permission to hunt can sometimes be obtained by a personal application to the owner of Deserta Grande, who resides in Funchal, and to whom it is possible to get an introduction from either the American or the British consul.

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[1] Chapter I., The Honeymoon.

[2] Chapter IX., The Desertas.

If the huntsman procures leave to shoot at Deserta Grande, it would be well for him to choose one or two trusty companions for the trip, which must be made thither in a row-boat, as no craft call there save when specially chartered. The writer had a friend who was robbed while he slept at Deserta Grande, and awoke to find that the crew in his employ had departed with the boat. It was by the merest chance that he was rescued, after a few days of exile, by a passing steamer. Another friend who started for Deserta Grande unaccompanied by friends was set upon by his crew when far out at sea. By free use of his firearms and fists he contrived to subdue his assailants.

The rock-bound coast of Deserta Grande contains many inlets and caverns, which are still the haunts of seals.

Cattle Raising.—After cattle were introduced into Madeira the raising of oxen became a chief industry, as they have always been used there for the conveyance of vehicles[1] in the place of horses. They are short, stockily built animals

[1] Chapter V., The Carro.

THE OXEN ARE GUIDED BY THONGS, ATTACHED TO THEIR HORNS.

and are well bred. They are guided by means of a leather thong attached to either horn, which is made sensitive by a process of tapping. From the time that the horns sprout until they are fully grown they are tapped frequently by a stick, which keeps them loose and sore to the touch. The milk of the goats is almost universally drunk by the natives, as it is quite tasteful and popularly considered more nutritious than the milk of the cows. The cows yield very little milk, and that of an indifferent quality, which is doubtless owing to the dearth of grass. As is elsewhere shown, pigs are the pets of the country-folk and are highly prized. Although the milk is indifferent, the beef is very good, and its fair quality is attributed to the floral food of which the cattle to be slaughtered partake, for, although grass is scarce, geraniums are so plentiful that geranium-fed beef is looked for in the markets.[1]

Beasts of Burden.—Donkeys and small burros can be hired for an expedition at from fourteen

[1] Chapter VI., Market Value of Commodities. In Chapter XX., Trees, the juice of the papaw-fruit is described as possessing the remarkable property of making tough meat tender.

hundred to sixteen hundred reis per day, which price includes the services of an attendant, who must needs accompany his stock in trade. In general use the pack-animals are overladen, overworked, unmercifully beaten, and generally maltreated. This is the case, as a rule, "more's the pity," in most southern and tropical countries. The national and international societies for the prevention of cruelty to animals are now making rapid strides towards establishing branches in the most remote countries and places.

Horses and their Care.—The wretched-looking pack-animals, the donkeys and the burros, furnish a striking contrast to the well-groomed oxen and the Arabian horses used in the livery-stables for riding purposes, of which the greatest care is taken. One can never hire a horse unless he be accompanied by an attendant, who runs alongside on foot. This attendant is detailed to keep guard over the rider and to see that he does not urge the horse to too great a speed nor in any way maltreat it. He carries in his hand a horse's tail attached to a short stick, and he employs this as a whisk wherewith to brush away the flies that alight upon the horse.

When the horse attains too great a speed for the attendant to keep up with comfortably, he frequently resorts to the steed's own flowing tail, to which he clings firmly while he deftly avoids the animal's heels. This action would seem to contradict his own theory regarding humane methods to be used with the steed under his charge. A distinction, however, appears to be drawn here between the cruelty which proceeds from the owner or the employee of the owner of the animal and, on the other hand, that which might be practised by an outsider.

English ladies ride a great deal, and it is the fashion among them to wear, in place of the regulation riding-habit of England, a long, loose skirt, made of some material which is light in weight and in colour. This article of apparel is donned and doffed in public in a most unconcerned manner. Indeed, it is startling to see a lady dismount in a crowded thoroughfare, loosen her belt, let her skirt drop, and step forth from its folds unblushingly. The on-looking Anglo-Saxon, whose pride it is to boast of the superior and innate modesty of his countrywomen, is relieved to find that the discarded garment is an extra overskirt, and that

its absence still leaves its late wearer respectably clothed in a full costume.

PRICES AT WHICH A HORSE AND AN ATTENDANT CAN BE HIRED

	Reis.
In Funchal and vicinity, per hour	400
To S. Roque or S. Martinho and return	1,000
To Camacha	1,300
To Camacha and return	1,800
To Poizo	1,700
To Poizo and return	2,400
To Cabo Girão and return	2,500
To Pico do Areeiro and return	3,000
To Santa Cruz	2,300
To Santa Cruz and return	3,200
To Machico	3,000
To Machico and return	4,000
To Jardim da Serra and return	2,700
To Ribeiro Frio and return	2,700
Per day	2,400
Per week	8,000
Per month	33,000

Occasionally slightly cheaper rates than the above can be found, but indifference is recommended, and time is necessary for the securing of a bargain.

THE BEACH AT SUNRISE.

Wool-Growing.—Sheep are herded in the hilly country near Funchal; but, while wool-growing has become a minor industry, mutton is not much eaten, being tough and rather tasteless.

The Domestic Fowls.—It might be here mentioned that the various domestic fowls[1] have been introduced, though this statement could be made more properly in the chapter on Ornithology.

Ducks and geese waddle about in the rippling ribeiros; chickens roost in the houses of the poor townsfolk at night, and in the daytime are tethered on the highway by a string tied to one leg and attached to the other end to a stake driven into a crevice in the cobble pavement.

Turkey-Time.—Turkeys are not much kept in the towns, but are driven thither in flocks in the early morning. The hour of their advent in the metropolis might be alluded to as turkey-time; for they are driven in great numbers through the streets, where they are offered for sale by the stentorian voices of their drivers. When a would-be purchaser appears at a door or window and points

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[1] Chapter VI., Market Value of Commodities; Chapter XVI., Egg Export, MADEIRA IN 1898.

a finger at, and makes an offer that is acceptable for, a certain bird, there is a scramble and much turkey-gobbling until the selected victim is caught. Then its neck is wrung and it is handed over to the buyer.

Business Hours. — Business hours[1] in Funchal begin early in the morning, before the roasting sun has risen high enough to glower with its perpendicular mid-day rays upon the islanders. To see the people at their busiest one must be up and on the beach by sunrise, at which time and place throngs of native boats arrive crowded with country-people, who have come by sea from coast villages near and remote to do business with the townsfolk.

By five o'clock in the morning the markets are crowded, and buying, selling, quarrelling, and yelling are the principal features to be observed and heard.

Slaughter-Houses.—The slaughter-houses also are open at this early hour, and, as there are many such establishments in the town, one is

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[1] Chapter XVI., Gold-linked Chains as Investments and as Currency; The Commerce.

A BUTCHER AND HIS VICTIM.

THE SLACK OF BUSINESS.

constantly being reminded of the fact when out for an early morning's stroll. Wild-looking sheep, oxen, and pigs are continually being driven by or into shabby-looking buildings, about the entrances of which are crowded eager on-lookers. The groans, growls, and screeches which issue from such uninviting places cause the visitor to hurry by in sickened disgust.

The Time for a Siesta.—The streets of Funchal continue crowded and busy until about eleven o'clock, when business is about over for the day. Between the hours of mid-day and three o'clock the streets are deserted, and the natives are to be found congregated beneath the shade of the trees in the public squares or in their gardens, lazily playing their guitars or machêtes. Others of the poorer class lie asleep on the pavements under whatever shade they can find.

The shutters of the houses are partly closed and all is silence until the sun begins to sink. Then the shutters are thrown open, the sleepers awaken, the lazy musicians cease their thrummings, and everything is *life* again.

The Time for Social Intercourse.—The late afternoons and evenings are given over to amuse-

ment. The English people, who are great entertainers, choose these times for their lawn-parties, dances, supper-parties, lawn-tennis tournaments, informal cricket-matches, and various other entertainments of a festive character.

LAZY NOONDAY IN THE METROPOLIS.

WHERE BRIGHT-PLUMAGED BIRDS DWELL.

CHAPTER XXV

THE ORNITHOLOGY

The discoverers of the *Ilha da Madeira* found its dense forests teeming with birds of beautiful song and plumage. And, though many of the forests have long since disappeared, the winged inhabitants have remained, and the birds of song continue to drift in the sunny skies and to fill the air with exquisite melody, while the birds of gay plumage still flit through the foliage and blend their brilliant hues with the flowers and tropical greens.

The Canary.—There are thirty-one different species of birds now breeding in Madeira. Of these the wild canary deserves special mention, as it is the original of the tame songster. A stranger unfamiliar with the characteristics of this bird usually smiles incredulously when informed of this fact, remarking that the canary of the bird-cage is light-yellow, whereas the so-called canary of the island is green. And then he learns that

this same green bird changes colour when captured and becomes the yellow canary with which he is familiar. The wild canaries are the most numerous variety of native birds.

The Petrel.—A local superstition relating to the petrel is worthy of passing mention. The country-people regard the petrel as a bird of ill omen, and believe that death follows beneath the roof of any house whereon it alights.

The Meadow Pipit.—The meadow pipit, too, is held in superstitious veneration, being regarded by the natives as a sacred bird. It utters a low call, runs swiftly, but seldom flies, and a tradition relates that it was present with the Virgin Mary at the time of the birth of Christ.

Following is an alphabetical list of the English names of Madeiran birds. The scientific and native names also are appended, together with brief descriptions of the appearance and habits of the feathered species listed.

ABOVE THE CLOUDS, WHERE THE BUZZARD DWELLS.

Birds Procreating in Madeira

English Name.	Native Name.	Scientific Name.	Remarks.
Barnowl.	Coruja.	Strixflammea, *Linn.*	Fond of the shade, and dwells in the darker caves and ravines.
Blackbird.	Merlo-preto.	Turdus merula, *Linn.*	
Blackcap.	Toutenegro.	Sylvia atricapilla, *Lath.*	
(Species of blackcap.)	Toutenegro capillo.	Curruca Heinekeni, *Jard.*	A favourite pet of the natives, and is easily tamed.
Buzzard.	Manta.	Buteo vulgaris, *Leach.*	Frequents the mountains of the interior.
Canary, green.	Canario.	Serinus canarius, *Linn.*	The original stock of the yellow canary, the change in colour being the result of domesticity.
Chaffinch, buff-breasted.	Tentilhão.	Fringilla tintillon, *Webb & B.*	A variety peculiar to Madeira, the Canaries, and the Azores, and never found elsewhere. Frequents the highlands.
Dove, ring.	Poubo.	Columba palumbus, *Linn.*	A denizen of the forest country of the north side, and furnishes delicate eating.
Goldfinch.	Pinta silgo.	Fringilla carduelis, *Linn.*	
Gull, herring.	Gaião; gaivota after third moult.	Larus argentatus, *Brunn.*	Frequents the sea-coast.

BIRDS PROCREATING IN MADEIRA—*Continued*

English Name.	Native Name.	Scientific Name.	Remarks.
Kestrel.	Francelho.	Falco tinnunculus, *Linn.*	A fearless bird of prey.
Linnet, or greater redpole.	Pintarroxo.	Fringilla cannabina, *Linn.*	A plentiful variety, of brilliant, never-changing, red plumage.
Partridge, red-legged.	Perdiz.	Perdix rubra, *Briss.*	Frequents the wild mountain tracts; is wary and fleet of foot, but furnishes excellent eating.
Petrel, Bulwer's.	Anginho.	Thalassidroma Bulwerii, *Gould.*	Native at the Desertas; has dark-brown plumage and two long, drooping tail-feathers. Peculiar to the Madeiras and the Canaries.
Petrel, dusky.	Pintamho.	Puffinus obscurus, *Temm.*	Breeds at the Desertas; has light-gray legs, on which it rarely stands, for it wriggles along the ground upon its belly and, being shy of daylight, climbs to hiding-places in the rocks, when darkness wanes, by aid of its bill, which it employs like a lever. It feeds on small fish and upon a few varieties of insects.
Petrel, Leach's.	Roque de Castro.	Thalassidroma Leachii, *Temm.*	

Pigeon, long-toed wood.	Pombo Trocaz.	Columba trocaz, *Hein.*	A common variety, dwelling in the large trees, where the remarkable length of its middle toe (varying from two to three inches) enables it to clutch the thickest branches. It is sought by the islanders as a delicacy of food.
Pigeon, rock.	Pombinho.	Columba livia, *Briss.*	Abounds in the mountainous coast districts.
Pipit, meadow.	Corre caminho.	Anthus Bertheloti, *Bolle.*	Flocks in the uncultivated mountain regions and in the fields near the coast.
Quail.	Cordoniz.	Pedrix coturnix, *Lath.*	Abundant; found near the coast villages, easy to approach, and furnishes delicate food.
Redbreast.	Popinho.	Sylvia rubecula, *Lath.*	A species of thrush with a red breast.
Shearwater, cinereous.	Cagarra.	Puffinus major, *Temm.*	Seen occasionally in Madeira and abounds at the Desertas. Salted and considered a table delicacy by the natives.
Shearwater, Manks.	Boeiro.	Puffinus anglorum, *Temm.*	Breeds at the Desertas; resembles the dusky petrel in habits and appearance, excepting that it is a slightly larger bird and has white legs. Trapped and salted for food.

BIRDS PROCREATING IN MADEIRA—*Concluded*

English Name.	Native Name.	Scientific Name.	Remarks.
Sparrow, ring.	Pardal.	Fringilla petronia, *Linn.*	Common to the various inhabited and uninhabited localities, and nests in the crags.
Swift, common.	Andorinha do mar.	Cypselus murarius, *Temm.*	Contrary to its name, an uncommon variety.
Swift, lesser.	Andorinha da Serra.	Cypselus unicolor, *Jard.*	A numerous, dark-plumaged, cliff-dwelling variety.
Tern.	Garrajão.	Sterna hirundo, *Linn.*	Seen occasionally on the coast, but rarely found nesting in Madeira. Frequents the Desertas.
Wagtail, gray.	Lavandeira.	Motacilla boarula, *Linn.*	Nests in the neighbourhood of the ribeiros and levadas.
Warbler, spectacled.		Curruca conspicillata, *Gould.*	Frequents the thickets of the wild mountain districts.
Woodcock.	Gallinhola.	Scolopax rusticola, *Linn.*	Dwells in the western highlands and abounds in the mist-hung thickets of the lofty Paül da Serra. Hunted at dusk by native sportsmen. Furnishes excellent food.
Wren.	Bibez.	Regulus madeirensis, *Harcourt.*	Characteristic to Madeira, and inhabits the wild, shrubby localities of the highlands.

The Ornithology

Although most of the information contained in this chapter was collected by the writer during his residence in Madeira, he desires, nevertheless, to express acknowledgments for assistance derived from consultation of a contribution by Mr. E. Vernon Harcourt in the *Annual and Magazine of Natural History* for June, 1855, and for aid obtained by reference to several of the works on ornithology found in the library of the British Museum.

CHAPTER XXVI

ICHTHYOLOGY

Animal-Flowers and Shell-Fish.—A ramble on one of the desolate beaches at low tide[1] can furnish much instruction and enjoyment to the person with a taste for natural history, or, indeed, to any lover of nature. Then the shallow pools which are left by the receding water are filled with many sorts of queer-looking creatures: sea-anemones, with hundreds of long, squirming feelers, star-fish, sea-urchins, with long, spiky spines, that the bather should beware of, as they may cause permanent lameness when tread upon, crabs of every size and description, periwinkles, limpets, and countless other inhabitants of the "vasty deep."

Fresh-Water Fish.—Eels are the only fresh-water fish in Madeira. They are good eating and abound in considerable variety in the mountain streams.

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[1] Chapter IX., Tide.

A BEACH AT LOW TIDE.

Fish a Staple Food.—The natives of the poorer class in the coast districts subsist largely on fish.[1]

Tunny.—Their principal sea-food is the *Peixe Atum*, or tunny, a large fish, weighing from three hundred to six hundred pounds, whose flesh is of a beefy red. The *Guelros*, or white-bait, is also relished; it is found near shore after rain-storms, when it swims in search of food into the muddy water at the mouths of inland streams.

Octopus.—*Pulvo*, or octopus, is sought after for the nourishing soup which it furnishes when boiled.[2]

Nearly every known species of marine fish inhabits the waters surrounding Madeira; there are few, however, that have the distinctive flavours by which we know them. This may be owing in part to the varying temperatures of the many currents swirling about the island, to the volcanic condition of the ocean bed, and to a variety of other causes.

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[1] Chapter VI., Marketing.

[2] Another dish is turtle-soup, Chapter XXVII.

Best Table-Fish. — The more tasty species are John-dory, Jew-fish, sardine, salmonete do alto, mullet, and abroteas.

Marine Varieties of Fish.—Of the more numerous species of marine fish the following is a partial list:—

Dog-fish	Peixe Cão
Electric fish	Torpedo
Flying-fish	Peixe Voador
Gurnard	Requieme
Herring	Arenque
Herring, Madeiran.	
Horse-mackerel, Madeiran	Chicharro
Jew-fish	Cherne
John-dory	Peixe Gallo
Mackerel	Cavala
Mediterranean Spet, or Pike-like Bicuda	Bicuda
Mullet, gray	Tainha
Mullet, red	Salmoneta
Mutton-fish	Carneiro
Needle-fish	Agulha
Rabbit-fish	Peixe Coelho
Sand-smelt	Guelro
Sardine	Sardinha
Sea-bream	Sargo
Sea-bream tribe	Pargo
Sea-fish variety	Garoupa

Ichthyology

Shark, twenty-four varieties[1]	Tubarão
Sucking-fish	Remora
Sword-fish	Peixe Espada
Toad-fish	Sapo
Tripe	Dobrada
Tunny	Peixe Atum
Whirlpool-fish	Boqueirão
White-bait	Guelros
. . . . .	Gaiado
. . . . .	Bezugo
. . . . .	Boga

[1] Chapter V., Where Sharks abound.

CHAPTER XXVII

REPTILES AND BATRACHIANS

There are no Snakes.—As Ireland is proverbially free from snakes, so is Madeira in verity. It is strange, but true, that there has never been a snake found on the island. Thus, no fear need be entertained on the score of venomous reptiles by the foreigner who would penetrate the Madeiran wilderness.

Turtles.—While the loggerhead turtle frequents the waters about Madeira, it does not breed there. It lays its eggs, and its young are hatched, on the hot sands of other tropical islands far away.

Turtle-Soup.—Madeiran fishermen catch the loggerhead when it floats asleep on the surface of the water, for its shell is useful for various purposes, and its flesh is made into a soup,[1] which, while inferior to the green-turtle soup relished

[1] Another dish is octopus-soup; see Chapter XXVI., Octopus.

THE VINEYARD, WHERE THE LIZARD IS DREADED.

by Americans and English, is nevertheless quite edible.

A garden pet is the *Testùdo græca*, a turtle that has been introduced from the African coast of the Mediterranean Sea.

Lizards. — Though in the Canaries there are many varieties of lizards, there is in Madeira but one, *Lacerta Dugésii*, and it is ubiquitous.[1] It varies from two to six inches in length, and its colour is often brown, though it is sometimes gray or black, or, again, greenish-blue. It infests the island in countless millions, and, though it abates the mosquito and house-fly nuisance, it is a pest to the vine-tenders, for it often causes great havoc in the vintage season by devouring the ripened grapes. It scampers from dark crevices and basks in the sunshine. It is but seldom seen in deeply-shaded places, while the sun-baked walls and sun-bathed sides of those varieties of trees whereon the foliage grows high and casts but little shade on the trunks are covered with the small creatures.

Batrachians.—A tree-frog, *Hyla arborea*, and a water-frog, *Rana temporaria*, were introduced

[1] Chapter V., The Ubiquitous Lizard.

about a hundred years ago and have since become characteristic. The singing of the tree-frogs in the hotel gardens in the evening takes the place of the singing of the birds in daytime, as does the croaking of the water-frogs in swampy rural districts.

WHERE FROGS INHABIT.

CHAPTER XXVIII

INSECTS

Number of Varieties of Insects.—There are about one thousand three hundred and thirty varieties of insects in Madeira; some are to be found at the mountain-tops, some in the forest, some along the sea and cliffs, and some in the towns and houses, where they are most noticeable to the new-comer.

Spiders.—Large spiders, from an inch to two inches in length, have a tendency to attach their webs to the ceiling during the night and by means of the threads which they spin let themselves down upon the bed of the sleeper.

Tarantulas.—Along the rocks there are many tarantulas, but these, the largest species of spider, rarely go into dwellings.

The House-Ant.—There is a most annoying ant which swarms in the houses, sometimes in thousands and sometimes in millions. When they appear in such vast numbers, it is advisable to

move out of doors until they are routed. This variety, which has been named *Œcophthora pusilla*, has been divided by scientists into four social classes,—the males, the females, the workers, and the fighters.

The Helpless Beetle.—These ants have a strong friendly regard for a certain species of beetle, which accompanies them on all their foraging expeditions; its scientific name is *Cossyphus*. It is almost blind and wingless, but its wants are carefully looked after by its friend the ant.

Cockroach and Cricket.—Other lovers of domesticity are a certain cockroach—there is another cockroach found in the fields—and a cricket with a stentorian voice. These bugs are especially fond of the kitchen, and rarely use the other rooms of the house except to exercise in after eating heavily.

Butterflies and Moths.—There are eleven varieties of butterflies and about one hundred varieties of moths. Some of the latter are very large and beautiful; most notable of the varieties is the humming-bird hawk-moth (*Macroglossa stellatorum*), which, when in flight, is frequently mistaken, even by naturalists, for the humming-bird.

Another notable variety is the death's-head hawk-moth (*Acherontia atropos*).

Beetles, Grasshoppers, and Locusts.—Madeiran beetles, unlike Brazilian beetles, are not brilliantly coloured, but have tints of black and brown. The common earwig abounds in all the islands of the Madeiran group, and a large grasshopper and a field-cricket are plentiful. There is also a scarce variety of locust.

"Insecta Maderensia," an authoritative work by Mr. Wollaston, the botanist, enumerates some four hundred and eighty-three varieties of beetle.

A list of Madeiran insects, compiled by Mr. James Yate Johnson and quoted by Mr. A. Samler Brown in his excellent book, "Madeira and the Canary Islands," is given on the following page. The number of varieties and the names of the several classes to which they respectively belong are also set forth.

List of Insects.—Synoptical List of Madeiran Insects.

Scientific Name.	English Name.	Number of Varieties.
Diptera	Two-winged insects,—*e.g.*, gnats, house-fly, etc.	160
Hymenoptera	Ichneumons, gall-flies, wasps, ants, etc.	217
Coleoptera	Beetles	695
Hemiptera { Heteroptera	Bugs	54
Hemiptera { Homoptera	Aphides, etc.	14
Thysanoptera	Midges	6
Lepidoptera, Rhopalocera	Butterflies	11
Lepidoptera, Heterocera	Moths	101
Orthoptera	Grasshoppers, locusts, cockroaches, etc.	19
Neuroptera	Dragon-flies, white ants, etc.	37
Trichoptera	Caddis-flies, water-moths, etc.	10
Aphaniptera	Fleas	3
Dermatoptera, Forficulidae	Earwigs	3
		1330
Arachnida	Spiders	60
Miriapoda	Centipedes	4

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